Consiglio Nazionale delle Ricerche

INFORMATION POLICIES IN THE HUMANITIES

edited by

CARLA BASILI

Consiglio Nazionale delle Ricerche
CERIS ISTITUTO DI RICERCA SULL'IMPRESA E LO SVILUPPO

Policy measures for scientific information have been and will continue to be subject to periodic review and revision, as a function of factors both internal and external to the science system. Different models of knowledge circulation and access to information coexist, often the one in contrast with the other.

The concept itself of "scientific information policies" tends to adapt to new configurations of the scientific system, to emerging models of knowledge transfer, the alternation of new agents, as well as to the role and functions of innovative vehicles for the dissemination of scientific results.

From an economic perspective, knowledge sharing and transfer are increasingly the leitmotiv of the recommendations issued by the European Commission to support the economic development of Europe.

In view of the above, the Information Policies in Science (IPS) project intends to identify a reference framework for analysing and comparing information policies along multiple dimensions, and tailored to diverse disciplinary contexts, given how much scholarly disciplines may differ in their information habits and environments.

The research area of the Humanities constitutes a major focus of the IPS project, since Humanities research is increasingly required today to sustain its position within the Knowledge Economy paradigm.

INFORMATION POLICIES IN THE HUMANITIES

INFORMATION POLICIES IN SCIENCE PROJECT

Information Policies *in Science*

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I would like to express my heartfelt thanks to Anna Perin for her availability and expert support in supplying documentation difficult to find. I am also very grateful to Chiara Faggiolani and Luca Lanzillo for the careful preparation of the text's format and for their proofreading.

Carla Basili

Copertina: a cura di Marco Tollis

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Anna Maria Tammaro from 2001 has been teaching in the University of Parma and is the Local Coordinator of the International Master in Digital Library Learning (DILL) and the University Rector Delegate for e-learning. From 2008 to 2010 she was Researcher Fellow in the Graduate School of Library and Information Science of the University of Illinois. She is Chair of IFLA Division IV and member of the IFLA Governing Board, from 2007 to 2011 she was Chair of the Education and Training Section. In 2011 she has been awarded by EUCLID the "Bobcat of the year" for her contribution given to LIS in Europe. From 2011, she is Vice President of the Tuscany Section of the Italian Library Association (AIB).

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PREFAZIONE

Secondo Rolfo
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Consiglio Nazionale delle Ricerche

Le politiche relative all'informazione scientifica ed alla circolazione della conoscenza hanno sempre avuto come focus principale le scienze naturali o scienze dure all'interno di una concezione largamente diffusa che vede gli avanzamenti di queste discipline come base per il progresso delle società contemporanee. Di qui l'interesse di molti governi (nazionali e regionali) per l'attuazione di politiche specifiche, ma anche le raccomandazioni di molti organizzazioni e società scientifiche volte a proporre e sostenere iniziative spesso dedicate al grande pubblico: festival della scienza, giornate della ricerca, caffè della scienza, sono esempi di una tendenza ormai diffusa anche nel nostro paese, anche se spesso caratterizzata da una mancanza di coordinamento e di indirizzo.

All'interno di questo approccio tuttavia si notano due criticità: la prima è relativa ad un interesse prevalentemente concentrato sui risultati della ricerca. In altri termini le politiche per l'informazione si focalizzano sulla fase finale del processo scientifico, cioè sulla diffusione dei risultati, soprattutto dopo che questa esigenza è stata inserita all'interno dei bandi europei e, a cascata, di molti bandi nazionali e regionali. Una seconda criticità riguarda invece proprio le scienze umane e sociali che sono sostanzialmente assenti dalle politiche pubbliche come se la circolazione dell'informazione fosse un fatto ristretto a cerchie limitate di studiosi senza alcuna necessità di allargamento a pubblici più vasti. Poche sono le eccezioni rinvenibili: le scienze economiche e sociali quando i risultati hanno un impatto mediatico molto forte o le discipline legate alla storia dell'arte anche qui in presenza di eventi particolarmente rilevanti. In ogni caso l'interesse è

focalizzato sulla diffusione dei risultati della ricerca più che su una circolazione della conoscenza ai vari livelli.

Per questo il Ceris all'interno dell'area di ricerca dedicata alle *information policies* ha sviluppato un filone di indagine relativo proprio alle politiche dedicate alla circolazione della conoscenza nel campo delle scienze umane e sociali. Proprio per fare il punto sulla situazione la dott.ssa Carla Basili, che di quest'area è responsabile, ha voluto organizzare - in collaborazione con la prof. Milena Dobreva del Dipartimento Library Information and Archive Sciences dell'Università di Malta - una serie di seminari, ciascuno volto ad approfondire l'analisi di uno specifico aspetto di *policy* relativo all'informazione scientifica. All'Università di Malta e agli altri enti, quali l'APRE, l'Agenzia per la Promozione della Ricerca Europea, nonché la SIPS, Società Italiana per il Progresso delle Scienze, va il nostro ringraziamento per la preziosa collaborazione all'iniziativa, i cui risultati sono ora oggetto di questo volume che raccoglie gran parte delle relazioni presentate nei diversi seminari, insieme ad altri interventi sollecitati proprio dalla discussione avviata.

FOREWORD

Secondo Rolfo
Director
Institute for Economic Research on Firms and Growth (Ceris)
National Research Council

Policies on scientific information and the circulation of knowledge have always seemed focused on the natural and hard sciences, a trend arising from the concept that advancement in these particular disciplines is the key to progress in contemporary societies. Such views explain the interests of many national and sub-national governments in actuating specific programs, and also the recommendations and actions of many science organisations and companies in favour of initiatives targeted at the broader public: science fairs and festivals, research open houses, and "science evenings" are only a few examples of a trend that is now wide-spread in Italy, although often characterised by a lack of defined objectives and coordination.

The general situation gives rise to two critical concerns. The first relates to the manner in which interest and actions are primarily concentrated on the aspect of research results. Current policies on diffusion of information focus on the final phase of the scientific process, meaning the diffusion of the findings. This is especially true now that such requirements have been inserted in EU calls for research proposals and descending from there, in many national and regional funding programmes. A second concern is that the humanities and social sciences appear essentially absent from public policy, as if the circulation of information for these fields were of interest exclusively to academic circles, without any need of enlargement to the broader public. There are only a few exceptions to this pattern, notably for findings in the social and economic sciences with immediate media relevance, or for "headline-grabbing" events in fields related to art and archaeology. Even in these cases, interest is brief and achieves only superficial diffusion of research

results rather than circulation of knowledge at the various levels.

Given this situation, the CERIS research cluster dealing with information policies has developed a line of investigation dealing specifically with how such policies refer to the circulation of knowledge in the social sciences and humanities. To clarify the current situation, Carla Basili, Senior Researcher responsible for this area, organised - in cooperation with Milena Dobreva, head of the Department of Library Information and Archive Sciences of the University of Malta - a series of seminars, each aimed at deepening the analysis of a specific policy aspect related to scientific information. CERIS extends sincere thanks to the University of Malta and all the other organisations involved, like APRE, the Agency for Promotion of European Research, and SIPS, Società Italiana per il Progresso delle Scienze, for their invaluable participation in the events. We are proud to now publish this volume, which gathers the majority of the presentations submitted in the seminars, plus additional contributions sought out, based on the discussion started.

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INTRODUCTION

Knowledge Sharing and Transfer in Scholarly Disciplines: the Information Policies in Science Project

Carla Basili*

The globalisation of scientific research is increasingly pushing towards maximizing the circulation of research results, both inside and outside the scientific community, in the form of both publications and data. Economic pressures to scientific research influence the definition of new policy measures for scientific information, aimed at balancing contrasting interests in the use and re-use of the results of publicly funded research.

Different models of knowledge dissemination and access to information coexist, often in contrast to one another. The very boundaries of the concept of "Scientific Information Policy" tend to adapt to new governance configurations of the scientific system, to emerging models of knowledge transfer, to the appearance of new agents, as well as to the roles and functions of innovative means for the dissemination of scientific results.

The moving toward a knowledge-based strategy for growth, traditionally based on tacit knowledge, is increasingly centred on codified knowledge, thus impacting directly on the processes of knowledge sharing and transfer.

Underpinning the idea of knowledge as an engine of economic development is the concept of "Knowledge Economy", in relation to which scientific research is called today to improve its efficacy, in every disciplinary area.

Against this context, Humanities cannot be exempted from these

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challenges and pressures, although conflicting with their nature and mission, and they constitute the main disciplinary focus of this special issue, precisely because - today more than ever - Humanities are required to support their (still weak) position within the Knowledge Economy paradigm.

These and other matters are among the research aims of the project "Information Policies in Science: Knowledge Sharing and Transfer in Scholarly Disciplines" (IPS)[1], a research project coordinated by Ceris-CNR which, starting from two complex fields of investigation - scientific information policies and disciplinary studies - aims at concentrating on the following aspects:

- characterising traditional and innovative information behaviour of humanities scholars and the ways in which research results are shared in the Humanities, in terms of literature, data, and research infrastructures;
- mapping and comparing scientific information policies in and for the European Research Area;
- identifying feasibility requirements and best practices of the process of knowledge transfer in the Humanities, including the potential involvement of different types of intermediary institutions.

The IPS project is based, first and foremost, on the awareness that policy measures for scientific information have been, and will continue to be, subject to periodic review and reformulation, depending on factors that are both internal and external to the scientific system.

Furthermore, the IPS project is underpinned by the assumption that, as mentioned above, the processes of knowledge sharing and transfer are seen as crucial to support innovation and economic development.

[1] Website of the IPS project:
<http://www.ceris.cnr.it/Basili/information_policies_in_science.htm>

The project's research themes[2] are organised around three key dimensions: different types of research results, different disciplinary contexts (characterised on the basis of information and research behaviour), and different information resources and information processes which are the target of information policy measures.

Main threads of the analysis in the IPS project: Scientific Information; Research data; Research Infrastructures, in matricial combination with the processes of Knowledge Sharing and Knowledge Transfer. Geographical distribution is the transversal dimension for international comparisons within the IPS research project.

Research in the Humanities constitutes the main disciplinary context investigated by the IPS project precisely because, today more than ever, the Humanities are required to support their position within the Knowledge Economy paradigm and because they appear to be particularly vulnerable to pressure from the European Commission to boost innovation.

IPS results to date include:

- BASILI C. (2009). *Information policies from the republic of science to the realm of innovation.* In D. Pietruch-Reizes, W. Babik, R. Frączek (eds.), *Save, innovational and accessible information: the perspectives for the information industry in the knowledge society.* Katowice: Polish Society of Scientific Information, p. 30-48.
- BASILI C. (ed.) (2010). *Sinergie invisibili: Ricerca e Informazione Scientifica nell'Economia della Conoscenza.* Roma: Consiglio Nazionale delle Ricerche.
- Policies and Practices in Access to Digital Archives: Towards a New Research and Policy Agenda - Summer University, Budapest (2012).

[2] Main aspects of policy concern addressed by the IPS project: Accessibility of information - Availability of information - Humanities Information Environment - Censorship – Privacy - Knowledge transfer - Information literacy in science - Free flow of information - Long-term preservation - *e*-infrastructures - Research Infrastructures - Scientific Language barriers - Open data - Information Commons.

- International Exploratory Seminar on *"Information Policies in the Social Sciences and Humanities"*, Rome, 6 December 2012.
- International Seminar on *"Information Policies in Science: qualitative and quantitative aspects"*, Rome, 7 June 2013 (a session of the QQML 2013 International Conference).
- International Seminar on *"Scientific Information Policies in the Digital Age: enabling factors and barriers to Knowledge Sharing and Transfer"*, Rome, 16 September 2013.
- International Seminar on *"Research Infrastructures in the Humanities: Key Policy Issues"*, Malta, 25 September 2013, TPDL2013 satellite event, organised in collaboration with the Library, Information and Archive Sciences and Information Policy Departments of the University of Malta.

This volume is among the IPS project results as well, and includes essays focused on different dimensions of Information Policies concern in the Humanities.

Carla Basili
17 December 2013

1. Scienze umane e memoria culturale nel mercato della conoscenza

Giovanni Guastella*

Le cosiddette scienze umane affondano le loro radici nella tradizione medievale dell'istruzione. Potremo considerarle come una tarda evoluzione delle arti del "Trivio" (Grammatica, Retorica e Dialettica), che erano fondate sullo studio del linguaggio e sull'interpretazione dei testi[1]. La forma che queste discipline hanno assunto nel periodo più recente della loro esistenza (gli ultimi due secoli) dipende, com'è noto, dal progetto neo-umanistico tedesco. L'*Humanismus* (da cui sono poi derivati termini come *Humanities* e Umanesimo) è stato il frutto di una grande opera di mitologizzazione, che poneva alla radice della cultura germanica, deformandolo, un concetto antico come quello di *studia humanitatis*. Cioè a dire quello stesso impianto delle "arti liberali" che nel Medioevo ha preso, appunto, le forme del Trivio. Nonostante i legami che questo ambito disciplinare mantiene con il suo più remoto passato, non andrebbe mai dimenticato che le *Humanities* sono prevalentemente un prodotto della cultura ottocentesca.

Che funzione svolgono queste discipline, dal passato così antico e stratificato, in una fase storica come quella attuale, che sembra avviata a un radicale mutamento delle forme comunicative fondate sulla scrittura e sulla stampa?

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[1] Erano infatti considerate "artes *sermo*cinales", cioè fondate sulla produzione e sull'interpretazione dei discorsi, e avevano come figura di riferimento il "litterator", cioè uno specialista della scrittura di testi. Le arti del Quadrivio, invece (aritmetica, geometria, astronomia e musica) erano considerate "artes *re*ales", cioè fondate sui fenomeni, e avevano come figura di riferimento il "calculator", cioè un esperto di calcoli numerici.

1.

Il campo su cui si gioca il futuro della formazione e dell'informazione è oggi certamente quello delle nuove tecnologie, che sembrano destinate a scardinare molti dei punti di riferimento della cultura novecentesca. Se ne ha una conferma scorrendo la gran massa di contributi dedicati all'impatto della ICT sul sapere contemporaneo e sulla sua trasmissione. Scegliendo un po' a caso fra le ultime cose che mi è capitato di leggere sull'argomento, mi sembrano rappresentativi di un atteggiamento piuttosto diffuso due libri recentemente apparsi negli Stati Uniti: quello di David Weinberger (2011) *Too big to know* (che come tanti altri celebra le magnifiche sorti e progressive della conoscenza su Internet) e una breve rassegna dedicata all'attualità della produzione culturale contemporanea, dal titolo *Digital_Humanities* (Burdick et al., 2012).

Weinberger analizza lo scenario che tutti possiamo osservare ogni giorno. Si sta passando rapidamente dalle forme tradizionali che il libro aveva imposto alla diffusione della conoscenza a un progressivo sconfinamento di quest'ultima in nuovi spazi, che consentono anche un'inedita strutturazione dei dati e delle argomentazioni, grazie alla diversa organizzazione che l'informazione ha acquisito sulla Rete. Nel contesto informativo inaugurato da Internet, i tanti filtri che garantivano la tenuta delle strutture formative e culturali "istituzionali" stanno saltando uno dopo l'altro. L'esclusiva della trasmissione del sapere non appartiene più a luoghi istituzionali come aule e biblioteche – i "templi" che la tradizione aveva innalzato per gestire e tramandare la conoscenza. Anche i "sacerdoti" del sapere (insegnanti, ricercatori etc.) vengono sempre più frequentemente affiancati da figure non professionali, e spesso dalla fisionomia decisamente amatoriale, che non di rado riescono ad accumulare e "processare" quantità prima impensabili di informazione. Persino i "rituali" della comunicazione scientifica (convegni, pubblicazioni specialistiche etc.) sembrano in ritardo rispetto alla gigantesca discussione sui temi più vari che si svolge in tempo reale e si allarga, in una dimensione interdisciplinare, alla vasta comunità

delle persone interessate. Insomma, la cultura non si fa più al chiuso dei centri di gestione intellettuale e accademica del sapere, ma sembra fluire in tutte le direzioni e al di là di ogni confine. Weinberger dà per scontato che le istituzioni tradizionali, il loro prestigio e il loro valore continueranno a esistere insieme alle nuove fonti e alle nuove reti di conoscenza, ma non è interessato ad approfondire il discorso sul loro futuro: gli basta osservare che non sarà più necessario rimanere all'interno di queste istituzioni per poter contribuire allo sviluppo della scienza. Weinberger ritiene infatti che esse siano ormai state stabilmente integrate nello spazio interconnesso dalla Rete, vera e propria interfaccia fra tutte le fonti possibili di produzione e trasmissione del sapere.

Gli autori di *Digital_Humanities*, invece, insistono sugli aspetti di innovazione che si sono depositati nel campo di studi delle scienze umane durante gli ultimi settant'anni. I mutamenti che hanno interessato gli strumenti di comunicazione richiedono, da parte degli utenti, un allargamento delle competenze nel campo della *literacy* multimediale (e in particolare la familiarizzazione con le tecniche generative del *design*, le cui innovazioni investono anche le tecniche tradizionali dell'argomentazione). Inoltre implicano un nuovo rapporto, di tipo collaborativo, fra docenti e allievi e il sovvertimento di alcune gerarchie fin qui ritenute costitutive di una corretta trasmissione del sapere (ad esempio quella fra scritto/ orale/ visuale). Tutto questo, all'interno della ricerca umanistica, ha introdotto anche nel metodo intellettuale di gestione della conoscenza notevoli cambiamenti, resi indispensabili dall'inedita cornice comunicativa in cui circola l'informazione[2].

In entrambi questi saggi si insiste molto sulla rottura di un modello secolare. Quello secondo cui la trasmissione del sapere si svolgeva prevalentemente attraverso i libri (strumenti in cui i testi hanno una forma fissa e sono in genere legati alla fisionomia di un autore ben

[2] Peraltro gli autori stessi ricordano (p. 17) come in parte sia stato l'approccio umanistico ad aver modificato i *computational methods*. "Indeed, this is a challenge for the development of the Digital Humanities, namely the ways in which ambiguity, interpretation, contingency, positionality, and differential approaches can be embodied in computation".

preciso) e all'interno di uno spazio riservato. Uno spazio, cioè, al quale poteva essere ammesso solo un numero limitato e scelto di persone, dopo aver superato la formidabile quantità di filtri che si trovano disseminati lungo i percorsi formativi e attorno all'accesso alle professioni intellettuali. Nel nuovo contesto inaugurato dalla rivoluzione digitale, invece, si disporrebbe di spazi più ampi e meno controllati. L'autorialità stessa, ad esempio, si sposterebbe dal piano ristretto ed esclusivo dei testi "fissi", che circolano tramite il libro, a quello più ampio e comprensivo di una sorta di *design* della conoscenza, che si va continuamente rimodulando sulla Rete, attraverso un'elaborazione collettiva. La nuova dinamica che regola la costruzione del sapere metterebbe perciò in crisi il vecchio modello (tipicamente accademico) di trasmissione della conoscenza, improntato all'esclusione e alla separatezza.

Ad essere enfatizzata, in questo tipo di contributi, è più che altro la rivoluzione che il nuovo scenario comunicativo in cui ci muoviamo sta creando nelle strutture che gestiscono la conoscenza. Le discipline in cui quest'ultima viene tradizionalmente suddivisa, invece, non sono oggetto di un'analoga attenzione, e tutt'al più vengono presentate come se dovessero seguire un percorso inerziale, condizionato in modo quasi meccanico dalla rimodulazione delle strutture tradizionali. Le *Humanities*, in particolare, si trovano tirate in ballo, in argomentazioni come queste, per il fatto di essere le più vetuste fra le discipline "accademiche"; quelle che, per così dire, rappresentano in modo più radicale la continuità del modello istituzionale che viene messo in crisi dalla nuova situazione comunicativa. In breve, rappresenterebbero la parte più vecchia di un modello invecchiato. Vorrei partire da qui per affrontare il problema del ruolo che le *Humanities* sono destinate a svolgere nella società del prossimo futuro.

2.

In volumi come quelli di cui sto parlando si presta in genere poca attenzione all'analisi delle forze in gioco all'interno del nuovo "campo" in cui avviene la trasmissione culturale[3] – un campo che si è effettivamente molto allargato in conseguenza della rivoluzione tecnologica. Si dà in genere per scontato che debba essere la logica di mercato (sia detto senza alcuna prevenzione) a orientare gran parte dei filoni di ricerca, la cui sopravvivenza è ovviamente legata a finanziamenti che solo raramente sono garantiti da soggetti istituzionali e/o disinteressati. Eppure non è superfluo ricordare che, nonostante i molti proclami relativi alle virtù che la società dell'informazione avrebbe in termini di libertà e autonomia, oggi il mercato condiziona la produzione scientifica in forme assai aggressive: si pensi solo ai problemi generati dalla concentrazione multinazionale dell'editoria e alle conseguenze che questo comporta per la capacità delle biblioteche di continuare a tenere aggiornati i propri fondi (librari *e digitali*!). E si può anche dire che la logica di mercato impregna in modo tutt'altro che marginale persino un sistema aperto come la Rete, dove realtà economiche come quella del più potente motore di ricerca, Google, condizionano in maniera imprevedibile il futuro tanto delle biblioteche e dell'editoria quanto della proprietà intellettuale (Vaidhyanathan, 2011). Le strutture culturali e formative non hanno certo la solidità e l'autorevolezza per contrastare questa forza d'urto, che diventa tanto più virulenta quanto più tendono a cadere, come si è detto, le barriere fra i luoghi protetti del sapere tradizionale e l'esterno.

Nel valutare i contesti in cui il sapere viene prodotto e fatto circolare, forse quest'aspetto va tenuto presente più di quanto solitamente non si faccia. Anche perché ha degli effetti non secondari sulla sopravvivenza di discipline e strutture formative. Nel caso specifico, è evidente che oggi il "mercato" non privilegia i temi tradizionalmente cari alle *Humanities*, per vari motivi, che non è

[3] Uso il termine "campo" nel senso che ad esso ha dato Pierre Bourdieu nelle sue ben note ricerche.

necessario affrontare in questa sede. Di conseguenza, si assiste anche a livello politico a una sempre più diffusa tendenza a trascurare questi campi e a non incentivarne lo sviluppo, concentrandosi piuttosto su attività di ricerca vocazionalmente più "produttive". È una realtà che sta sotto gli occhi di tutti. È singolare, peraltro, il fatto che continui a circolare, anche nei programmi politici, il *topos* retorico secondo cui le scienze umane e il patrimonio della memoria culturale sarebbero valori imprescindibili per lo sviluppo di una società come la nostra. Un *topos* al quale ovviamente non consegue nessuna misura economica di sostegno o di promozione. Come se la cultura umanistica fosse destinata a sopravvivere solo a condizione di non comportare spese.

3.

Il riferimento ai programmi politici è in realtà necessario anche per altri motivi. Sono infatti i governi dei singoli paesi, ancora oggi, a giocare un ruolo tutt'altro che secondario nello sviluppo delle istituzioni formative e culturali. Bisogna guardare ai vari orizzonti nazionali per comprendere quali sono le prossime tappe del processo di sviluppo di questi organismi. La retorica usata di solito nelle argomentazioni di contributi come quelli che sto commentando pone invece l'accento sulla dimensione globale di fenomeni culturali macroscopici, ignorando questi orizzonti. Internet, ad esempio, viene presentata come uno spazio aperto, all'interno del quale i confini nazionali tendono a essere scavalcati con estrema facilità, diventando quasi irrilevanti. Eppure è ancora all'interno di questi confini che si progetta l'organizzazione delle *strutture formative*. Schematizzando, potremmo dire che mentre queste ultime sono ancora sostanzialmente fondate su modelli di chiara impronta nazionale, la Rete, potenzialmente capace di interconnettere quasi tutte le fonti e le agenzie del sapere, ci apre davanti un orizzonte globale. In altri termini, tuttora le due dimensioni – quella più innovativa della globalità e quella più tradizionale" della nazione – rimangono in un rapporto di continua sinergia.

Questo stato di cose ha conseguenze significative sulla vita delle discipline, che anche nel nuovo contesto continuano a costituire, con la loro varietà, la mappa intricata dell'universo del sapere. Quando si parla del loro assetto futuro, ci si trova di fronte al curioso paradosso di doverlo negoziare con realtà (e certe volte con vere e proprie comunità organizzate) ben radicate in tradizioni nazionali di lunga durata, specialmente all'interno delle strutture educative. Motivo per cui certi scenari dinamici e flessibili, che a prima vista possono apparire seducenti e facilmente realizzabili, cozzano contro la ruvida consistenza di istituzioni che forse non è tanto semplice riformare in tempo reale.

Per fare solo un esempio, in *Digital_Humanities* si propone a più riprese di promuovere l'interdisciplinarità a principio ispiratore della formazione, un po' a tutti i livelli. Partendo dal fatto che negli Stati Uniti il *core* del *curriculum* scolastico è sempre rimasto oggetto di una discussione irrisolta, gli autori arrivano a ipotizzare scenari futuri in cui, piuttosto che prolungare il dibattito sterile sui contenuti e sulle strutture disciplinari, sarà possibile costruire "open-source humanities divisions" e Dipartimenti in continua trasformazione, riassemblati di volta in volta secondo il modello dei *music samples* (Burdick et al., 2012, p. 56). Secondo loro, è già tempo di dar vita a *curricula* dotati di *life-cycles* limitati, come accade a qualsiasi *software*. Si tratta di una prospettiva certamente affascinante. Ma per quanto sia abituale introdurre l'interdisciplinarità nelle singole ricerche che si svolgono nei vari ambiti delle scienze umane, non sembra altrettanto semplice immaginare un percorso di avviamento alla conoscenza (e alle professioni), in mezzo a un così cangiante panorama di Dipartimenti e Facoltà tematiche, lungo *curricula* sistematicamente svincolati dalle coordinate delle singole discipline. Ciò che la pratica dell'interdisciplinarità rende stimolante e vivo nella realtà della ricerca può rivelarsi difficilmente esportabile nell'organizzazione del sistema educativo, soprattutto nei suoi gradi più elementari. Da questo punto di vista si potrebbe dire che le strutture formative sono più conservatrici rispetto a quelle della ricerca. Forse sarebbe opportuno chiedersi se è bene che sia così (e che continui a

essere così), prima di affermare che tutto questo è destinato a sparire nel prossimo futuro.

4.

Finché la struttura della formazione di base manterrà i connotati che continua ad avere ancora in questi anni, la ridefinizione delle aree disciplinari andrà considerata in un quadro culturale finalizzato alla gestione di una *tradizione* del sapere. Una tradizione che ovviamente si confronta con tempi lunghi e movimenti lenti. Non è certo un caso che, di fronte alle mutate condizioni della produzione e della circolazione della conoscenza, le strutture educative sembrino in genere poco elastiche e piuttosto impacciate persino nella ricezione di quelle innovazioni tecnologiche che fuori dai confini scolastici, nella vita quotidiana di qualsiasi consumatore, dilagano senza problemi. Specie se queste innovazioni mettono in crisi la tradizione di insegnamento nella quale le istituzioni scolastiche continuano a mantenere il proprio fondamento. Se si tiene presente questo particolare, forse non risulterà così sorprendente il fatto queste stesse strutture si rivelino tanto più restie a procedere a una rimodulazione delle proprie mappe disciplinari.

Non si tratta certo di una peculiarità italiana, anche se da noi il fenomeno assume i tratti di una particolare arretratezza, soprattutto a causa dell'assai scarsa lungimiranza con cui viene affrontato a livello politico. Anche nei vari stati europei le strutture formative, che non a caso continuano a mantenere un assetto ancora sostanzialmente nazionale, sono solo all'inizio di un processo verosimilmente inarrestabile, che in prospettiva richiederà ad esse di riposizionarsi all'interno del contesto globale. Di conseguenza, la consolidata classificazione delle discipline (e di riflesso anche i loro stessi contenuti) viene per il momento a trovarsi in sistematica tensione fra una dimensione nazionale, sintonizzata sulle lunghezze d'onda della tradizione, e una dimensione globale, fortemente condizionata dalle prospettive della tecnologia e del mercato.

5.

Ancora oggi la struttura accademica europea (e in generale anche la struttura della formazione superiore) si rivela figlia del progetto humboldtiano di inizio '800 (che non a caso ebbe origine da un'ideologia fortemente nazionalistica). In un paese come l'Italia è facilissimo verificarlo: basta una rapida consultazione del *syllabus* dei vari gradi scolastici, che si mantengono stabilmente incentrati sulla lingua e sulla cultura italiana (con le sue ben note radici classiche).

All'interno di questa struttura, il grande ambito disciplinare delle "scienze umane" è stato per quasi due secoli al centro della formazione di intere classi dominanti e ha goduto di un'autorità indiscussa. Com'è noto, è stato infatti proprio questo il nucleo principale del grande progetto ottocentesco dal quale discende ancora oggi l'impianto delle strutture accademiche un po' in tutto l'Occidente.

Come mai la posizione di assoluto prestigio che tali studi hanno occupato per un tempo così lungo è attualmente oggetto di tante critiche e di un così diffuso disinteresse? Le ragioni sono varie, e non è possibile affrontarle qui. Si rischierebbe di fare quello che troppo spesso si tende a fare di questi tempi, quando si affronta l'argomento: generalizzare solo qualcuna delle cause di un fenomeno assai complesso oppure dire cose vaghe e indimostrabili. Come fanno quegli intellettuali che lamentano l'imminente fine dell'umanesimo, attribuendo a una società intorpidita dall'ignoranza la responsabilità del disinteresse, ad esempio, per i grandi testi e i grandi temi della letteratura, che un tempo attiravano senza problemi l'attenzione degli allievi. Fra l'altro, dietro questo genere di lagnanze (spesso, va detto, proposte con una certa supponenza) si avverte la preoccupazione per una prossima fine dell'intellettuale umanista piuttosto che per un imminente esaurimento delle *Humanities*.

Limitiamoci perciò a constatare il fatto che a questo comparto della cultura, che *aveva goduto di grande prestigio* fino a pochi decenni fa, oggi viene riconosciuta un'attrattiva relativamente modesta, e non viene più attribuita una particolare autorevolezza. In questa nuova situazione, e di fronte ai cambiamenti rapidissimi della società

contemporanea, vasti settori di quest'ambito disciplinare appaiono ancorati a un passato che sta progressivamente svanendo. È come se faticassero a sintonizzarsi con i nuovi scenari culturali, per comprendere i quali è necessario un bagaglio di conoscenze spesso estraneo alla tradizione umanistica.

Sintomatico, ad esempio, è il fatto che l'alfabetizzazione tecnologica non rientri di solito nell'alveo della formazione umanistica, e non si sia formata negli ultimi tre decenni una tradizione didattica in questo campo. Si ha come l'impressione che le strutture formative affidate ai rappresentanti delle discipline umanistiche non si siano adeguatamente attrezzate per gestire i nuovi contesti comunicativi, e non sappiano bene come organizzare il *design* della conoscenza, nel nuovo ambiente digitale. Di conseguenza rimangono, per così dire, a rimorchio delle tecnologie e dei *format* imposti all'informazione, il cui governo si va spostando decisamente al di fuori delle istituzioni scolastiche e accademiche. Già questo mostra chiaramente quanto sia cambiata la posizione gerarchica occupata dalle discipline umanistiche nel nuovo contesto comunicativo: un contesto la cui agenda è dettata dall'andamento dell'innovazione, piuttosto che dal passo lento della tradizione. È inevitabile che col passare del tempo anche le *Humanities* si adeguino al nuovo ritmo, come del resto sta già avvenendo nei contesti più avanzati. Ciò non cambia però la funzione cruciale che esse svolgono nella vita di una società.

6.

Nonostante il relativamente scarso apprezzamento di cui godono adesso, le scienze umane rimangono un punto di riferimento fondamentale (e non solo per il loro prestigioso passato storico) nell'universo delle istituzioni culturali e formative. Il loro compito fondamentale continua a ruotare, da un lato, *nel presente*, attorno alla comprensione e alla gestione dell'interazione umana, dall'altro, *in una dimensione diacronica*, attorno all'archiviazione e alla trasmissione della memoria.

Queste operazioni culturali servono a valorizzare ciò che una società ritiene rilevante e, in modo complementare, a ridimensionare (spesso fino alla cancellazione) ciò che reputa secondario conservare nella propria memoria. Non si tratta di fare, sul versante positivo, del collezionismo culturale e di censurare, sul versante negativo, contenuti ritenuti scomodi (spacciandoli per irrilevanti) a vantaggio di un'oligarchia del sapere[4]: significa tentare di *trovare un ordine e un senso* nel gran mare dell'interazione fra gli uomini e fra i popoli. È anche grazie a queste operazioni che le nostre società riescono ad avere una migliore consapevolezza della propria collocazione nel tempo e nello spazio e a gestire al meglio le tecniche di comunicazione su cui si basa l'interrelazione e la convivenza fra gli uomini.

L'accumulo e la continua trasmissione e reinterpretazione della memoria culturale possiedono regole peculiari, che sono diverse da quelle praticate nelle cosiddette "scienze dure". Si tratta di regole legate alla tradizione di un sapere cumulativo, che pur metabolizzando e riformulando continuamente un immenso patrimonio di conoscenza, mantiene viva la percezione di una feconda continuità nella vita dei popoli.

La funzione culturale che questo tipo di attività intellettuale ha svolto per secoli rimane ancora alla base, oggi come ieri, di qualsiasi percorso formativo. Su di essa le nuove tecnologie esercitano un'azione espansiva, con enormi effetti positivi; come ad esempio quei fenomeni di allargamento della partecipazione e di *inclusione* sociale (le minoranze, gli *amateurs*, i ricercatori calamitati dalla compartecipazione interdisciplinare etc.), giustamente elogiati da intellettuali come Weinberger. Ma i contenuti (e persino i metodi) di queste discipline rimangono sostanzialmente inalterati alle fondamenta dell'edificio sociale che caratterizza la contemporaneità, e vengono semmai rivitalizzati dalla sua evoluzione.

[4] Così tende a presentare la cosa Weinberger, riducendo le *Humanities* a una caricatura di quello che in realtà rappresentano, e trascurando la funzione di riduzione del "rumore" che questo tipo di operazioni svolge nel mare senza limiti della comunicazione contemporanea.

7.

Porre alla base della formazione il *sermo*, l'interrelazione fra gli uomini nelle sue forme più varie, non è solo il portato meccanico della tradizione: è una necessità. Dato che comunichiamo a tutti i livelli attraverso il linguaggio, le "scienze" che si occupano dell'interazione umana continueranno ad avere verosimilmente questo come fondamentale oggetto di studio.

È utile prendere proprio il linguaggio come piano di riferimento, per tentare di abbozzare, in conclusione, il quadro delle prospettive future. Oggi le lingue (e il ventaglio di culture che esse rappresentano) sono pur sempre ancorate a contesti nazionali e a tradizioni che ruotano attorno a identità nazionali: a seconda della piega che assumerà il futuro geopolitico che abbiamo davanti, lo studio del linguaggio umano conoscerà probabilmente significativi cambiamenti, che condizioneranno molte scelte strutturali nell'impianto delle discipline umanistiche, e con esse anche il nostro modo di identificare i filoni della tradizione culturale (nel senso più ampio del termine).

La nostra abitudine di contrapporre, come si fa in base all'attuale periodizzazione, una storia dell'Occidente e della sua cultura ad altri filoni di tradizione che per secoli sono stati considerati sostanzialmente esterni ad essa, potrebbe presto diventare obsoleta. Da questo punto di vista, si può immaginare che l'impianto delle scienze umane, con la sua matrice ideologica ottocentesca, sia destinato a una radicale revisione. Sull'onda della rivoluzione culturale e sociopolitica che stiamo vivendo dovremo presto confrontarci con nuovi scenari globali, in cui la visione dell'Occidente fondato sulla civiltà greco-romana finirà per sbiadire o entrare in un diverso e più ampio modello interpretativo.

Già ora appare in netta fase di trasformazione il radicamento delle *Humanities* nelle ideologie nazionaliste. L'impianto tradizionale di queste ideologie va lentamente confluendo verso un modello più ampio, sempre più centrato sulla specificità "occidentale" delle nostre culture (magari nei termini etici del tutto astratti e generici come quelli recentemente proposti da studiosi americani come Edward Said o

Martha Nussbaum)[5]. Almeno per il momento è questo il risultato negoziale più rilevante di quella tensione fra nazionale e globale di cui parlavo in precedenza. Ma via via che anche la contrapposizione fra Oriente e Occidente verrà a modificarsi, sarà necessario trovare nuove strategie per dare forma alla tradizione delle nostre culture, che in ogni caso continuerà ad avere al suo centro la trasmissione della memoria.

Questo cambiamento di prospettiva risulta affascinante e coinvolgente per chiunque lo pratichi già ora nella ricerca. Risulta invece assai più problematico se lo si considera dal punto di vista dei percorsi formativi, soprattutto ai livelli più elementari. Concepire un impianto articolato della storia universale dell'umanità, delle sue lingue e delle sue culture, che risulti sostenibile per un qualsiasi *curriculum* formativo, risulta ancora piuttosto difficile; e nell'agenda politica degli organismi che si occupano della formazione non mi pare rientri fra le priorità.

È proprio questo, però, il compito più importante che attende le discipline umanistiche, in conseguenza della rivoluzione avviata dalle nuove tecnologie e dalla globalizzazione: immaginare strutture culturali ed educative capaci di gestire in una prospettiva inedita un enorme capitale di tradizioni e di memoria. Non è la prima volta che accade, nella storia dell'umanità: e se riusciamo ancora a ricordarlo e a esserne consapevoli è perché quelle che chiamiamo *Humanities* da secoli ci consentono di custodire un patrimonio simile.

[5] Said, 2007; Nussbaum, 2011.

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2. Acume 2 interfacing science and humanities: a European project for integrated studies*

Vita Fortunati**

> Science is that form of poetry (...) imagination and reason act together synergistically (P.B. Medawar, *The Hope of Progress*, 1971).

SUMMARY: Introduction; 1. The urgent need for integrated studies; 2. The concept of Interface; 3. Interface as a strategy: a new method of approaching literary studies; 4. The Notion of Transdisciplinary Studies; References.

Introduction

There is a clear consensus of opinion among progressive academics that the 'crisis of the humanities' is deep and far-reaching, as evidenced by the number of both specialized and mainstream publications on this theme (Nussbaum, 2010). European and national Research Councils, as well as the ESF (European Science Fund), are outspoken about the need to discuss the identity and the purpose of the humanities today. At the same time, however, the neo-liberal, profit-oriented style of management of the universities has even more negative consequences for the humanities than for other academic fields and tends to dismiss them as unproductive and uncompetitive. All the emphasis seems to be on entrepreneurship, Research and Development and endless research assessment exercises.

Comparatists (Bassnett, 1993) facing of the complexity of the

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phenomena characterizing our "planetary" society, state the need to eliminating the fears that have always haunted humanistic studies concerning the other disciplines, since perhaps these very disciplines can furnish new interpretative models and heuristic tools. Since the Eighties, under the pressure of deep, complex problems of migration, the accelerated processes of acculturation, the movements of global capital, the diffusion of media and of information networks, comparative studies have once more questioned their own identity. Many comparatists realise that comparative literature needs new paradigms, the trait that all new comparatists have in common, despite their different theoretical approaches, is the awareness that, faced with this new scenario, they must not only accept the challenge of complexity, but also try to find theoretical and practical solutions for studying and teaching world literature (Simonsen, Stoutgaard-Nielsen, 2008; Ascari, 2011; D'Haen, 2012; Bevenuti, Ceserani, 2012). Some keywords are essential to focus on new strategies for overcoming identity crisis in humanities: networking, new epistemological paradigms and new perspectives, intersections or interfaces between the traditional disciplines in the humanities and new emerging fields (gender studies, post-colonial studies, new media studies etc.) and the impact of technology upon humanistic thinking and practice.

As for my paper, the issues I will tackle are the following:

1. The urgent need for **integrated studies**. The deep crisis of humanities, a crisis which was brought about by financial problems, but also by the awareness that the complexity of the world surrounding us needs new approaches and new methods. An integrated knowledge is necessary to understand the complexity of our current culture environment. We are aware that science and humanities are no longer two separate spheres of knowledge but two complementary and integrated ambits. Science has to take into accounts epistemological and ethical issues, humanities need to face and be aware of scientific developments and new conceptualisations. On the whole this

approach should be of reciprocal benefit and fertilization for both science and humanities.

2. **The notion of Interface** related to some of the studies which have helped me in clarifying this concept.
3. **Is the interface a metaphor or a methodology**? In the interface what we are interested in are the contact zones, since they represent the spearheads of a discipline. From these contact areas, to be considered as interesting fertile terrain, where contaminations and hybrids are generated, new cognitive paradigms arise.
4. The results obtained using the Interface methodology and in particular two case-studies on **Memory** and on **Bio-Complexity**.

1. The urgent need for integrated studies

For the target of an integrated culture, one needs to go beyond the long lived controversy between the two cultures and to deconstruct the stereotypes embedded in scientists and humanists. Reading C. P. Snow (1959; 1963) one wonders whether, after almost fifty years, these stereotypes on the differences between humanists and scientists are still present in public opinion: scientists as optimistic, progressive, left wing liberals who look to the future for inspiration, humanists as pessimistic, right wing conservatives who are inclined to dwell on the past.

Recently, the Italian mathematician Odifreddi (2007), in a collection of essays, *I Classici e la Scienza* claimed that "...the various cultures and paradigms are not anything different from the faces of an intellectual enterprise which transcends them all and each one of these furnishes nothing but a structurally, socially and historically limited point of view" (p. 53).

The issue of integrated culture is intimately connected to the necessity of eliminating fences between disciplines: it is a given fact that disciplinary barriers are still very strong at universities, in primary and in secondary schools.

Ludovico Geymonat (1908-1991), the father of Philosophy of Science in Italy, was impatient of any artificial barrier and claimed that borders exist to be crossed. Nowadays there is an awareness that a parcelled type of culture is no longer adequate to our modernity, an excessively specialised knowledge does not seem appropriate to study and comprehend the complexity of the modern world: the huge questions that technological and scientific development, from atomic energy to genetic engineering, have posed, require a clarity of analysis that only integrated knowledge can offer. Excessively specialised learning does not pay.

From different directions, the need to profoundly reform teaching in schools and universities is felt: the excessive fragmentation of knowledge damages the young who are being educated, because it transmits a vision of knowledge as a series of separate and not communicating vases. This concept is underlined by the philosopher Edgar Morin, and by Paolo Dario, a engineer interested in robotics. Morin states that our teaching system separates subjects, fragments reality, actually making understanding of the world impossible and preventing the awareness of fundamental problems which need a trans-disciplinary approach (Morin, 1999).

Paolo Dario (2007) claims that: "Technology today must also melt with human sciences, which should, in their turn, proceed in the direction of innovation and open up, with curiosity and receptiveness to the stimuli of technology. The model of engineering guided by science requires a high level of creativity and *problem solving* capacity" (p. 263).

From the 70s onwards the studies on the relationship between science and literature have started to deconstruct this binary distinction, trying to spotlight not only the affinities, but also to identify possible cognitive paradigms common to both spheres. In those studies striving to find affinities between the two cultures, it has been noted that both are crossed by language. Not only literature, then, but also science is "a discourse", involving the same kinds of rhetorical strategies, literary tropes, and unstable meanings as other forms of writing". Also L. J.

Jordanova (1968), an eminent historian of science, in a beautifully written essay stated: "Our primary object of study is language-that which mediates all thought, action and experience. We focus largely on the discourses common to science and literature" (p. 17).

The are many insightful pages in the works of Carlo Levi, chemist, poet and great novelist, and in those of Italo Calvino, a writer constantly fascinated by science, geometric shapes, symmetries, the *ars combinatoria* and by geometric proportions, on how science and literature, far from being two separate activities, have many points in common. Andrea Battistini (2008) in an essay highlighted how the paradigm of bio-complexity was one that also humanistic disciplines could use. What links literature to biology is complexity, the complexity of subjects and of reality (p. 321-330).

Another instance is offered by Stephan Collini (1998) in his recent reediting of Snow's work, when he stresses how the notion of physics has changed since Snow's times. From the notion of a subject considered: "[...] as the hardest of 'the hard sciences', a discipline traditionally taken to exemplify how rigorously deductive analysis of a few general laws confirmed or falsified by induction from controlled experiment, provided predictive knowledge of the behaviour of the physical properties of the universe. The so called " new physics " of the last twenty years has modified this model in two related ways. First, its actual findings about the nature of matter or the origins of the universe appear to install unpredictability, open-endedness [...]" (p. xlvii). The new conception of physics harmonises with the view of the world proper to humanistic sciences and literature.

In order to understand this contiguity, it is necessary to rethink some of the clichés on the scientific and the poetic languages: the former being denotative, transparent, a language referring more directly to what is spoken about, the latter connotative, inherently ambiguous. On the contrary in order to show how much these two types of discourses can have common elements, it can be useful to start from analysing the use of metaphors in both cultures. The study of metaphors has become, indeed, one of the central themes in the analysis of the relationship

between literature and science (Black, 1962; Cornell Way, 1991; Swinburne, 1992). Those who know how to use metaphors, or are capable of inventing them showing that they possess a high level of creativity, metaphors are a powerful instrument of knowledge, it is an epiphany-like glimpse of reality. Metaphor is a means of semantic enrichment that is common both to scientific and poetic languages, and makes them productive and creative languages, capable of producing original views of the world or of things. In this respect the scientist and the poet or the writer possess this capacity for "estrangement", for looking at reality with a stranger's eyes, and consequently, discovering unusual and hidden links of the world surrounding us. Many sciences, amongst which immunology have actually used metaphors to explain natural phenomena.

Furthermore, in general it is claimed that the "modelling" (mathematicisation) of the world aspires to soak up its infinite characteristics, in order to achieve a model in which the qualities of reality are surpassed in favour of quantification, while the artistic attitude is one of attention to details, to fragments, and to single facets. This oppositions is also questionable, because the description of singularities and fragments would acquire no artistic/universal value without an underlying vision of the world, i.e. a model. Thus the modelling of the world is not only a feature of science, but upon a closer look, also of literary works. As Calvino (1995) reminded us in his *Lezioni americane: sei proposte per il prossimo millenio*, in his lecture on Exactness (Esattezza): "the formal choices of each artist always presuppose a cosmological model [...] poetry is a great enemy of chance, although she herself is a daughter of chance..." (p. 687-688).

The other quality that both the poet and the scientist are endowed with is exactitude, the never ending quest for the right word, in the case of an author, precision in the observation and the description of natural phenomena in the case of the scientist.

According to Calvino exactitude means above all three things:

1. a well calculated and defined plan of the work.
2. the evocation of neat, incisive memorable visual images (in

Italian we have and adjective missing in English *"icastico"* from the greek *eikastikos).*

3. a language as precise as possible, both lexically and in conveying the nuances of thought and imagination (Calvino, 1995, p. 677).

Another important point concerns the concept that today we have of culture and science, more complex and less simplistic than that proposed by Snow. For example, the research of the philosophers of science have helped to better understand the scientist's work method (see for example Thomas Kuhn's idea that scientific change does not invariably take the form of a steady accumulation of knowledge within stable parameters; anomalies in the evidence accumulate to the point where change takes the form of a "discontinuous jump" or "paradigm shift"). Furthermore, researches by the sociologists of science have highlighted how the very constitution of scientific knowledge itself is dependent upon culturally variable norms and practices, seen in this way science is merely one set of cultural activities among others, as much an expression of a society's orientation to the world as its art or religion, and equally inseparable from fundamental issues of politics and morality. Science, then, seen as a "social construct".

The third point is the discourse on creativity: those who watch closely the great watersheds in scientific thought and technological innovations themselves, cannot but recognise how the most creative aspects have overthrown all disciplinary fences.

By investigating the relationship (links, affinities, differences, questions and problems) between the sciences and the humanities more deeply an idea of mutual influences arises that favours a more dynamic idea of interfacing. Therefore, a starting and fundamental point is to acknowledge the isomorphism of the two fields that, to respond to their own actuality and societal matrices, have often simultaneously developed new models and strategies in investigating complex scientific and cultural (artistic, literary) phenomena. This idea of isomorphism (Hayles, 1984) is no longer linked to the traditional ideas of cause and effect, but instead implies simultaneity and not consequentiality: one of the two fields does not influence or condition the other one. Isomorphism implies, indeed,

joint discoveries, as both domains tend to develop, at the same time, new investigative models which become, in their turn, analogical mirrors of a world in constant progress. This idea leads us to view sciences and humanities together, because their mutual interfacing can trigger new, dynamics in the various fields of knowledge.

In the two previous centuries, in fact, theories of education were developed around the ideas of distinction and choice: humanities on the one hand, sciences on the other hand. On the contrary, today students are asking for new educational models, reflecting the complexity and interplay of a world characterised by a different understanding of knowledge and, especially, by the rapid development of new societal matrices As a consequence, other possible paradigms have begun to emerge, following the development of new societal conditions, such as globalisation, changing political assets and the development of new 'mediascapes'. In such a shifting context, the idea of "interface/interfacing" seems to offer a suitable paradigm triggering new heuristic implications. Also, the very idea of 'interfacing' leads to the interesting concept of 'complexity', itself a metaphor implying exchange, mutual interlinking and, above all, to the concept of 'networking', that is of new strategies for looking at and therefore rendering the world now in progress. The concept of networking implies not only a new way of carrying on transversal researches among different disciplines but also a new way of conceptualising and representing "reality". Networking is at the basis of complexity: a new epistemological paradigm that is common both to humanistic disciplines and Science.

We are facing a constantly evolving cultural situation and this is a fact that both domains have to acknowledge. Among the most interesting examples there are, for instance, new university programs in medical schools, faculties of engineering and other scientific branches which are offering specific courses in literature, arts, philosophy, as well as courses encouraging creativity. On the other side, there are examples of positive applications of scientific research and knowledge in the humanities: from more practical applications, such as the creation of new disciplines within the humanities (e.g. the case of the 'Humanistic Informatics'; the creation

of new infrastructures, e-archives, new databases, etc.), to new theoretical developments combining theories of literature/criticism and scientific models of investigation (from 'field theory', to chaos theory).

Other interesting examples come from the social sciences, which have been playing a pivotal role in developing new lines of research and new concepts capable of breaking down barriers and encouraging interdisciplinary approaches. Anthropology is an exemplary case: for example, in this discipline the scientific idea of "thick description" is applied to analyse culture tout court, a broad and complex concept which nevertheless interfaces the two domains. Following similar patterns, in the last two decades scholars in the humanities have started to reconsider the idea of "literary phenomena", with literature no longer perceived as a closed system, but instead as a complex one, a network of events, therefore triggering a new understanding of "zeitgeist". In such a shifting environment, inevitably the links between scientific discoveries and literary and artistic experiments are reconsidered not just as linear and sequential phenomena: they are, instead, interlinked and convergent.

2. The concept of Interface

As the second point I would try to investigate the concept of "interface" that has been the working hypothesis of the European project *Acume 2 Interfacing Science and Humanities* which I have coordinated.

It is not difficult to understand the meaning of the term "interface", composed by the prefix inter or intra, meaning "between two or more parties", and of the root "face", surface, face, point of contact. It is a term, however, which defies monolithical explanations.

The semantic fields to which "interface" can be applied space from Information Technology (I.T.) to geography, from chemistry to metaphor.

Generally speaking, it is in I.T. that the term was used for the first time, a use which shows that an interface is not only a point of contact allowing communication, but also one of the methods of

exchanging this information. We will use this term, which is a catch all, it seems, and thus fascinating for the power it possesses of suggesting more than describing, as a methodological point of origin, and not as a simple metaphor. Let's try, then, first of all to propose a few definitions of the term "interface": in computer sciences or in information technology: it is a circuit, a part of the hardware that physically links to different components. The USB (Universal Serial Bus) port of a computer can be considered an effective example of this. But an interface is also part of a computer's software, that is, a program enabling the interaction, the translation between two languages, and thus allowing the user to interact with the machine.

The "man-machine" interface in the strict sense of the term is then, for example, the program allowing someone to use his or her desktop or lap top computer. In other words, an interface is a knot, a minimum in a wider complexity. It is also the description of an exchange, a specification of the limits of a given activity. All information exchange implies, then, the presence of an interface.

The utility of this notion is not then, that of naming something, but rather of making it visible.

We can examine, for example, our "human being – technology item" interface. Are we really facing an interface (excuse the pun)? If the answer is yes, then one must consider the two systems as distinct and independent, since there are continuous exchanges between what is biological, what is human, and non and non-biological and non-human space. This last case is evident in artistic representations of artificial being, and especially in medical technologies, CAT (Computer Axial Topography) C.A.T. scans and X rays, for example, allowing human space to become readable, as it were.

Sickness or health are literally traced by a tool that allows these traces to become evident, visible, to the eyes of the doctor, who is capable then of reading them. The interface works, then, not only in the striking cases in which a hybridization of the mechanical and the organic occurs, but also as a mediator, as a communication solution between two actors communicating to each other, and even as the new language

invented for this communication. The example could again be C.A.T. scans, a technique for medical imagining which consists in calculating a 3D reconstruction of tissues on the basis of a tomographical analysis obtained by having the patient swept over by an X ray beam. In this much used diagnostic process the are many "mediations" of messages: from a patient's symptoms to the diagnostician using an analysis instrument, styling a final report on the basis of data obtained from the patient's body. In turn, these data are interpreted by the practitioner, who, then, will formulate a therapy. It is no mere diagnosis: in the different stages of the procedure, different levels are involved, the patient's body becomes a network, a multiple system comprising a physiological, an organic, a psychological and an existential dimension. It is also at the heart of the system of medical knowledge, a final subject at the meeting between epistemology (all that is known on man and his functioning) and culture (the way illness is perceived by the subject itself, by society, the way the particular illness is pictured by the patient and described to or by others). Interface is thus not a metaphor, but a methodological approach: it is a question of seeing how the two systems, man and technology, interact, at what level and how, from this observation, patterns may arise, that is, structures, continuities or discontinuities. The levels of interfacing can be analysed, in order to know if the two systems are really independent.

The seminal studies by Katherine Hayles (1984) and Edward O.Wilson (1999) are vitally important. Two texts, written respectively by a scholar who moves in humanistic studies (and now also of ITC) and the second by a biologist, both affirming the need for a cooperation between the two fields proposing new methods and paradigms of knowledge. Therefore, a starting and fundamental point is to acknowledge the isomorphism of the two fields that, to respond to their own actuality and societal matrices, have often developed simultaneously new models and strategies in investigating complex scientific and cultural (artistic, literary) phenomena.

In her volume Hayles relates the literary sign/signs to the scientific theories, and proposes the idea of 'field theory' or 'field

concept' as the epitome of the new way of observing and perceiving contemporary reality that characterizes both scientific research and artistic and literary endeavour. What is interesting about Hayles's book and characterise her line of research is the fact that the author doesn't limit herself to simplistic, even predictable, remarks: such as "science influences literature and opens it to new imagery" or "new scientific discoveries offer literature new models of expression"; rather, Hayles proposes a deeper observation and inscribes the new concept of field within a definitively more complex background. Hayles, in particular, observes that between the end of the nineteenth and the beginning of the twentieth century the two spheres of knowledge, humanistic and scientific, both started proposing similar modes of investigation, less and less attached to an atomistic (Cartesian) idea of knowledge and increasingly linked to a holistic idea, that Hayles defines, precisely, "field theory". Science and humanities propose new investigative methods that Hayles ascribes, precisely to the idea of field theory, and that are build on two fundamental assumptions.

1. All things are linked not by a tidy, hierarchic logic, but simultaneously, by their joint presence.
2. For this very reason, the language expressing them is, inevitably, self- referential.

These conditions make observation more complex, because it cannot be carried out in a traditional way: all difference between the observer and the observed is eliminated (both actors belong to the same field of observation, and mutually influence each other); a difference that is, on the contrary, fundamental in the perspective of atomistic (Cartesian or linear) observation: "in the atomistic view, the gap between subject and object is not 'contaminated' by the circular paradoxes of self-referentiality, because it is assumed that reality can be divided into separate, discrete components. Consequently, it is assumed that language can be used to define the relation between subject and object in a formally exact way. But the field concept assumes that these components are interconnected by means of a mediating field. When language is part of the mediating field (i.e., the means by which the

relation between subject and object is described), it participates in the interconnection at the same time that it purports to describe it. To admit the field concept thus entails admitting that the self-referentiality of language is not accidental, but an essential consequence from within the field" (Hayles, 1984, p. 41).

'Field concept' is thus a way of observing (viewpoint) underpinning both scientific and artistic research and that, as previously said, can no longer be explained in the terms of a simple cause and effect relationship, precisely because it is perceived simultaneously by the two fields. Rather, Hayles stresses how important it is to read this new idea in the light of a complex and ever changing cultural background: "'[...] a comprehensive picture of the field concept is more likely to emerge from the literature and from science viewed together than from either one alone. [...] A more accurate and appropriate model for such parallel development would be a field notion of culture, a societal matrix which consists [...] of a 'climate of opinion' that makes some questions interesting to pursue and renders others uninteresting or irrelevant'" (p. 10-22).

In turn, the idea of "consilience" that Wilson investigates in his studies proposes the union of the two cultures in order to grasp, holistically, the cultural processes and those of the natural world. The definition of consilience is thus unequivocal.

"Consilience [is] a jumping together of knowledge by the linking of fact and fact-bases theory across disciplines to create a common ground-work of explanation" (Wilson, 1999, p. 8).

3. Interface as a strategy: a new method of approaching literary studies

Katherine Hayles in her study carries out a new method of literary analysis, founded on the use of mathematical models, applicable to texts. Hayles fundamental working hypothesis is the idea that the 20th century change in the scientific paradigm determined a change and a

new conceptualisation of reality, which necessarily effect both the scientific and the social, cultural and artistic milieus. However, it is not a simple influence between the scientific and the artistic or social domain. A revisiting of the concept of comparison thus becomes necessary. It is now longer the case of adapting a scientific method to literary studies, it is no longer a case of using metaphors, but rather seeing the two spheres of knowledge indissolubly linked, taking part in this "cosmic web" that connects a holistic, multi stratified universe to man, science, technology and art. According to Hayles, the theories of chaos and of complex systems of the 20th century have supplied investigative models and brainframes[1], which can be applied to all the fields of human [studies]. In other words, the old cause and effect notion leaves the field to a simultaneity of non-consequential relations and to areas of isomorphism, where the different levels and materials interact simultaneously.

Hayles invites us then to a reformulation of the concept of "comparison". It is no longer a question of putting on the same level two or more texts, but rather keeping the borders of texts fluid to permeable thematic constructions, languages, structures, all part of contemporary "discourse", where human beings, technology, art overlap each other in a continuum.

In the European Project Acume 2 starting from specific "case-studies", we have tried to understand how some concepts, metaphors and narrations, migrating from one discipline to another, have acquired new meanings. Consequently, they have provoked new configurations of savoirs, and have opened new frontiers of knowledge.

1- Words such as "appropriation", "translation", and "reassessment"

[1] A brain frame is a structure for the physiological, cognitive and sensorial reception and interpretation of reality, created and determined by Information Technologies. According to his model, the means of communication change the mental configuration of those who take part in the communication. Derrik de Kerckhove, a pupil of M. McLuhan, developed this concept and it is used here, modifying its application somewhat. The whole of technologies and sciences with its paradigms are in fact considered her as agents of changes in the mainframe.

have become key words to understand the reconfiguration of the processes of knowledge that occurs when there is this migration from one discipline to another. Another important point that emerged was that in this process of migrating from a discipline to the other the different historical and national contexts must be kept in mind.

Concepts, metaphors, and narratives are not only the most important theoretical and analytical tools of academic discourse, they also provide critical interfaces between sciences, literature and humanities, enabling debate, research and dynamic exchange on the basis of a common language. However, more often than not, the meaning and operational value of concepts, metaphors and narratives, even of those which appear to be self-explanatory, differ between diverse disciplines, different academic and national cultures, and historical periods. Concepts such as 'communication', 'code', 'complexity', 'life' and 'system', metaphors like 'crisis', 'network', 'body' and 'text', and cultural narratives such as 'evolution', 'ageing' and 'digression', which are at the core of both sciences and humanities, are not univocal and firmly established terms. Rather they are dynamic and exchangeable as they travel back and forth between academic contexts and disciplines. Hence they constitute what Mieke Bal (2002) has felicitously called **'travelling concepts'**.

With the move towards greater transdisciplinarity, the dynamic exchange of concepts between different disciplines as well as the translation of concepts into metaphors and narratives has surged. Through constant appropriation, translation and reassessment across various fields, concepts, metaphors and narratives have acquired new meanings, triggering a reorganisation of prevalent orders of knowledge and opening up new horizons of research. To the extent that their meaning must, therefore, be constantly renegotiated between different disciplines travelling concepts, metaphors and narratives can foster a self-reflexive approach to the Transdisciplinary study of culture.

4. The Notion of Transdisciplinary Studies

I would like to mention two books *Memory/Memories: Transdisciplinary Routes* (2007) and *Biocomplexity At The Cutting Edge Of Physics, Systems Biology And Humanities* (2008) which are the result of our effort to experiment the notion of interface as a strategy for approaching possible common epistemological paradigms both in science and humanities. Both of these books were born from the fecund idea of transdisciplinarity. While in "interdisciplinarity studies" the various disciplines operate at each other's side, and each tackles the same problem from its own field of competence, in "transdisciplinary studies" the research methods themselves are re-envisaged and, consequently, so are the disciplinary boundaries. The idea of transdisciplinarity is built on the reasoned and dynamic combination of verticality (macro-areas) and horizontally (common keywords).

2- Our first book proposes to investigate the state of the art of the studies on memory in six disciplinary macro-areas: SOCIAL SCIENCES; BIOMEDICAL SCIENCES; ARTS AND MEDIA; HUMANITIES; RELIGION STUDIES. These are crossed by 'keywords' present in the conceptualisation of memory that has taken place in the last twenty years: this means that every section must confront the keywords that constitute a sort of red thread running across the various disciplines.

1. Evolution
2. Individual and collective memory/memories
3. Memory and trauma
4. Memory as a dynamic process
5. The context
6. Memory and Information
7. Memory and oblivion

3- The idea of trans-disciplinarity is built on the reasoned and dynamic combination of verticality (macro-areas) and horizontality (common keywords). In this way, "traditional disciplinarity" remains a compulsory touchstone (both for the writers and the readers) but it is 'revisited' by means of common keywords that acquire marked heuristic relevance.

Another example of the work we are carrying out in collaboration with scientists is a book born from a seminar aimed at investigating the paradigm of 'bio complexity' as a possible heuristic model for the interpretation of complex systems in other disciplines.

In this book biological complexity represents a challenge and a possible paradigm for other field of knowledge whose objects are non biological "complex systems" (i.e. literature).

The working hypothesis that of using the model of bio complexity as the paradigm for the observation of complex systems in both fields of human and scientific sciences: from biology to economics, from literature to physics, and so forth.

The aim of these suggestions is to illustrate the red thread of the book, ideally uniting the papers of the various authors, having different objects and referring to different disciplines.

On this subject, the fundamental idea of the book is the following:

- There are concepts able to highlight common characteristics of a whole series of complex systems, despite their apparent diversity and their belonging to different fields of knowledge. As an example of this we have to verify if the theorisation of biological complexity can be an useful tool to investigate literature, considered as a complex system. In the humanities the paradigm of biocompexity has revealed itself to be a useful analytical tool, because in a global perspective of literary systems, the idea of a European and Trans-European literatures and cultures as complex systems that interact which each other in a system of networks appears like an idea that is starting to be explored in recent comparative and post-colonial studies. The study of literature at global level needs due to its complexity, models created in other fields of research, for instance quantitative historical graphs, geographical maps and the genealogical tree of evolutionary theory, only in this way can relations, structures and forms be identified in the literary macro-systems.

The most advanced conceptualizations of biological complexity have underscored how living organisms have the following characteristics:

1. they are constituted by a very high number of elements that mutually interact, organizing themselves in functional and dynamic **networks**;
2. they possess different **levels** or **strata of complexity**, from molecules, to sub cellular organelles to **the cell**. This fundamental unit of living organisms does not only constitute in itself a complex system par excellence, but represents the building block of higher level of organization, capable of generating a whole series of different tissues and organs that finally constitute a unique body;
3. the different bodies(organisms) organize themselves in **societies** constituting in their own turn ecological systems who are even more complex, in which hundreds or even thousands of different species coexist or cohabit in a dynamic balance;
4. they are systems possessing their own **evolutionary history**, conditioning their structure and their functional capacities, and thus entails a series of **constraints**;
5. they are the result of a selection **for fitness**, which optimises the networks from the structural and the functional point of view, and is exercised at all the above mention levels of complexity, from molecules and cells to organisms;
6. they are organized in **module**s, meaning, by module, the aggregation of networks with a defined function. Modules are organized by the means of **links** amongst them in order to form supra-modular organizations, and so forth;
7. they are **dynamic, open** and **non-linear systems**; dominated by **stochastic fluctations and noise**;
8. they are characterized by **the emergence of wholly unexpected proprieties and functions** (symbolic language, awareness, etc…);
9. they possess the capacity of **learning** and of remembering (**memory**) which occurs from the molecular to the highest level of the biological organization, including the most sophisticated cognitive functions;

10. the behaviour of every given element is determined by its **context**, i.e it is conditioned by all the others together, in a continuous interactive and dynamic system.

These two books represent a record document of the fecundity of an approach remixing traditional disciplinary distinctions and show how so apparently different subjects they share similar methodological problems which can be analysed by the same instruments. It is not a trivial lesson for scientific institution such as universities, still organized according to a vision that does not represents the current dynamics of knowledge. Memory and Biocomplexity are thus examples of how fecund it is to challenge those traditional separations which are unable to grasp the heuristic and epistemological potentialities of a transdisciplinary method.

I would like to end my contribution with two quotations since they emblematically summarise the working hypothesis of my research on complexity in literature and science: the first by Calvino (1995) and the second by Prigogine (1997).

"...the function of literature is the communication between what is different... not dulling but exalting its difference" (Calvino, p. 668).

"While classical science used to privilege order, stability, today we recognize the primal role of fluctuation and instability at every level of observation [associating] the multiple choice and the horizons of limited predictability" (Prigogine, p. 74).

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3. EU policy trajectories for Scientific Information and their potential implications for the Humanities

Carla Basili*

SUMMARY: Abstract; 1. Socio-economic role of knowledge since the Lisbon Strategy; 2. Scientific information in the EU recommendations for boosting innovation; 3. Distinctive features of humanistic knowledge and of its dissemination; 4. Humanities disciplines within the EU priorities of the Knowledge Economy; 5. Concluding remarks; References

Abstract: The impact of Science on Society and Economy is increasingly a priority in the current political and cultural climate, where the role of Scientific Research is conceived in the context of the Knowledge Economy paradigm and where the whole spectrum of scientific disciplinary domains – Humanities included - is called to make its own contribution to socio-economic development.

This commitment invests not only knowledge production, but also knowledge diffusion - along all of its different communication channels - given that, within a Knowledge Economy paradigm, improving knowledge circulation constitutes clearly a crucial goal.

This essay examines the EU policies on Scientific Information, their contextualisation within the current economic climate and their different strands of influence on research conduct.

Special attention is paid to the process of knowledge transfer between academic research and industry, *as compared with the traditional contrasting attitude of the Humanities research.*

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1. Socio-economic role of knowledge since the Lisbon Strategy

Following the Lisbon Strategy, launched by the European Union in 2000 with the aim of turning Europe into a knowledge-based economy, the discourse on the economic role of Science was shaped by the following linear causal logic: *knowledge is the engine of innovation and innovation is the engine of economic development.*

Within this rationale, a crucial role is played by the processes of knowledge production and dissemination and, consequently, by the agents involved in these processes, namely universities and research institutions, together with libraries and documentation centres.

Yet, within the above causal logic, an equally crucial role is played by *innovation*, understood as the ultimate purpose of research and of activities focusing on the production of new knowledge.

Despite these highly significant relations, there has been a total or partial failure in achieving some key objectives of the Lisbon Strategy, particularly those connected with the ability to produce innovation, leading to weaknesses such as:

- limited diffusion of an entrepreneurial and innovation-oriented culture by research and university institutions;
- limited investments, especially private investments, in research and development;
- major difficulties encountered by Europe in turning research results into commercial opportunities.

With a view to overcoming these weaknesses, the Europe 2020 economic strategy was formally launched in 2010. Once again, this strategy rests on the belief that Research and Innovation are pivotal factors to emerge from the economic crisis which has been affecting Europe.

According to this socio-economic climate, which type of knowledge – i.e. "which type of research" – is seen as strategic for the development of Europe and, consequently, as deserving of support and financial investments? Certainly, knowledge that generates innovation,

which means knowledge that, when transferred and applied, leads to the creation of new products and services of socio-economic utility.

2. Scientific information in the EU recommendations for boosting innovation

In parallel with these developments, the European Commission has greatly intensified its interest in the dissemination of Research results by means of scientific information, in the recognition of

> THE IMPORTANCE OF SCIENTIFIC INFORMATION. In order to become an increasingly *competitive* knowledge-based *economy*, Europe must improve the production of knowledge through research, its dissemination through education, and its application through *innovation*. All research builds on former work, and depends on scientists' possibilities to access and share scientific *publications* and *research data*. The rapid and widespread dissemination of *research results* can help accelerate innovation and avoid duplication of research efforts, although some *delay* for the first use by researchers or for *commercial purposes* can be justified. (EC, 2007)

Italics have been used to emphasise some terms which deserve to be briefly commented on, also in light of a comparison between the above views, dated 2007, and similar views expressed in 1948 at the First International Scientific Information Conference, where the following was declared: "Science rests upon its published record, and *ready access* to *public scientific and technical information* is a fundamental need for *scientists* everywhere".

First of all, in 2007 the importance of scientific information was explicitly justified on the basis of the link existing between the Knowledge Economy and Innovation, understood as the application (including *commercial purposes*) of the knowledge produced by research. This logic was completely absent in 1948, when technical-scientific information was conceived as remaining entirely within the

province of the scientific community (*scientists*).

Another major difference between the two approaches is the shift from publications (*published record*), mentioned in 1948, to the broader concept of "research results" expressed in 2007, which also includes (at least) research data along with publications.

The two stances present subtler references to economic aspects. The 1948 declaration referred to *public* scientific information, which undoubtedly meant non-confidential information but also information resulting from research financed through public funding. In 2007, explicit reference was made to the exploitation of research results *for commercial purposes* as well as to "some delay" in their dissemination within the scientific community – it might be guessed, in order for the patenting process to be completed, since patenting regulations forbid publication before a patent is issued. On the contrary, in 1948, the need for *ready access* to public scientific information was asserted without compromise.

Explicit reference to the benefits expected from the public funding of research is also made in one of the most recent communications of the European Commission, i.e. COM (2012)401, which clearly outlines this strategy starting from its title: "*Towards better access to scientific information: boosting the benefits of public investments in research*".

Lastly, the Opinion of the European Economic and Social Committee on COM(2012)401 dispels all doubts when, in its first paragraph, it states that: "Access to scientific information is an essential requirement for successful research and boosting innovation, and therefore for Europe's competitiveness as well. (2013/C 76/09)"

In the EU recommendations on scientific information, the image of scientific research "enslaved" to its applications, whether commercial or social, clearly remains in the background, while it is decidedly brought into the limelight in the EU recommendations on knowledge transfer. This is by no means surprising, since knowledge transfer is a process specifically aimed at communicating scientific results to enterprises, so that they can create usable products and services. Indeed,

it is one of the channels used for the communication of scientific results, which, as mentioned elsewhere[1], occurs along three different channels: within the scientific community ("*scholarly communication*"); between the scientific community and enterprises ("*knowledge transfer*"); and between the scientific community and society ("*public understanding of science*").

Hence, the EU view about the strategic role of knowledge transfer is expressed in a series of official documents such as, just to mention a few: Communication COM(2007)182 – "Improving knowledge transfer between research institutions and industry across Europe: embracing open innovation - Implementing the Lisbon agenda", followed by Recommendation C(2008)1329 - " Knowledge Transfer and Code of Practice" and by Communication COM(2010)546 "Europe 2020 Flagship Initiative - Innovation Union". The latter Communication promotes the concept of "Knowledge Alliances" between Education and Business, which "will help universities to modernise towards inter-disciplinarity, entrepreneurship and stronger business partnerships".

From the point of view of information policies, it is worth noting that three items in the list of commitments made in connection with the Innovation Union objectives in COM(2010)546 - and, specifically:

> 20. open access to the results of publicly funded research activities,
> 21. effective transfer of research results,
> 22. development of a European knowledge market for patents and licensing,

– regard distinct information policy lines and effectively summarise EU expectations for what concerns scientific information and research behaviours.

These guidelines apply to all research communities, including the

[1] IPS - project web site: Information Policies in Science. Knowledge Sharing and Transfer in Scholarly Disciplines.
<http://www.ceris.cnr.it/Basili/information_policies_in_science.htm>;
Unesco Thesaurus: <http://databases.unesco.org/thesaurus/>.

Humanities, which are therefore urged to follow them, albeit each with its specificities linked to research and information processing practices.

3. Distinctive features of humanistic knowledge and of its dissemination

The debate on the peculiarities of Humanities studies compared to other research fields is neither new nor unchanging over time. After C. P. Snow's "The Two Cultures" of 1959, the discussion has recently been centred on Kagan's "The Three Cultures" (2009). In line with the current strand of thought, Kagan focuses on the further distinction between Social Sciences and Humanities.

Defining the features of humanistic knowledge implies first establishing the disciplinary boundaries of the Humanities. In fact, this research community comprises a wide range of disciplinary sectors which might be very different from one another. Moreover, their distribution varies depending on the classification considered.

In the following two classifications - the OECD Fields of Science and the Unesco Thesaurus - Humanities area is structured as illustrated, respectively, in table 1 and table 2:

6. Humanities
6.1 History and Archaeology - History (history of science and technology to be 6.3, history of specific sciences to be under the respective headings); Archaeology;
6.2 Languages and Literature - General language studies; Specific languages; General literature studies; Literary theory; Specific literatures; Linguistics;

6.3 Philosophy, Ethics and Religion - Philosophy, History and philosophy of science and technology; - Ethics (except ethics related to specific subfields); Theology; Religious studies;
6.4 Arts (arts, history of arts, performing arts, music) - Arts, Art history; Architectural design; Performing arts studies (Musicology, Theater science, Dramaturgy); Folklore studies; - Studies on Film, Radio and Television;
6.5 Other humanities

Table 1: OECD Fields of Science (2007)

Science	
Culture	3.05 Culture 3.10 Cultural policy and planning 3.15 Philosophy and ethics 3.20 Religion 3.25 History 3.30 Linguistics 3.35 Languages 3.40 Literature 3.45 Art 3.50 Visual arts 3.55 Performing arts 3.60 Museums 3.65 Leisure
Social and human sciences	Social sciences 4.10 Psychology 4.15 Social systems 4.20 Social problems 4.25 Social policy and welfare 4.30 Ethnic questions 4.35 Population 4.40 Family 4.45 Human settlements and land use

Table 2: Unesco Thesaurus classification

For the purposes of this analysis, it is particularly relevant to underline - in both the above classifications - the presence, within the "Humanities" field, of numerous specific disciplines which are very different from one another and yet share a common set of values, motivations, and aspirations, making up the "cultural substratum" of this research area.

The stereotypical Humanities scholar is described in the literature as someone who does not like working in a team, is a neo-luddite by nature or, in any case, not very well versed in the use of new technologies, prefers monographs over journal articles, mostly uses his/her native language, and produces a scarcely structured and mainly interpretative type of knowledge.

The research behaviour characterising the Humanities and the ways in which knowledge is disseminated within this area have been the subject of recurrent studies over the last decades, and technological factors (Digital dilemma) have taken on an increasingly crucial role in these investigations (Perrault, 2006).

Following the seminal work by Stone (1982), a considerable amount of literature has been produced in recent years on the information habit in the Humanities, extensively referenced in the Research Information Networks report 2011 (RIN, 2011).

More specifically, the RIN (2011) report analyses the information behaviour in the Humanities from different points of view:

- *access* to information resources (focus on texts and images, in print, manuscript and digital forms; appreciation of the ease and speed access to digital resources; not yet ready to abandon print and manuscript resources in favour of digital ones);
- *dissemination of research results* (traditional channels of formal publication; limited use of blogs and other social media; sceptical attitude about quality assurance for users of social media);
- *conduct of research* (growth of more formal and systematic collaboration between researchers by means of new possibilities opened up by new technology – choice of technologies suitable

for the research in hand, no blind use of new technological solutions just because they are new – scarce use of advanced tools for text-mining, grid or cloud computing, or the semantic web).

4. Humanities disciplines within the EU priorities of the Knowledge Economy

The debate on the Humanities has expanded over time and has come to include new aspects, usually in response to new pressures and/or new opportunities. In the past the Humanities were urged to embrace new technologies, thus creating the so-called "Digital Humanities", while today they are asked to leave their academic niche behind and enter the innovation market.

The latter request was explicitly addressed to the Social Sciences and Humanities community through one of the first actions of the Lithuanian Presidency of the European Union, i.e. the organisation of the Presidency Conference "Horizons for Social Sciences and Humanities" in Vilnius on 23rd-24th September 2013. In preparation for the conference, the organisers took a step of great relevance to reflect on research in the Humanities. They drew up a consultation questionnaire in which researchers working in SSH were asked about the following matters: their degree of involvement in "problem-driven" research"; the societal relevance of research themes that were high on the research agenda of their field in that period; the potential contribution from their research to the challenges of contemporary society; the obstacles hindering their contribution to societal challenges; and the main incentives that might boost the involvement of Social Sciences and Humanities in the Horizon 2020 initiative.

In brief, researchers were asked about the socio-economic benefits they expected to generate through their research activities, a new commitment for the Humanities but not for the Scientific Research. In fact, a specific classification – the EU's Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets classification

(NABS, 2007) – has been established since 1969, as a tool to categorise R&D funding distribution by socio-economic objectives.

Among the main entries in the NABS 2007 classification, the socio-economic objectives identified for the research area encompassing Humanities is described as follows:

Chapter 10. Culture, Leisure, Religion and Media	This chapter includes R&D with respect to:
	- The social phenomena of cultural activities, religion and leisure activities as well as their impact on life in society; - Racial and cultural integration and socio-cultural changes in these areas.
The "culture" concept includes the sociology of science, religion, art, sport and leisure and, among other aspects, also encompasses the media, language and social integration, libraries, archives and cultural policy.	
This chapter also includes R&D with respect to:	- Recreational and sports services; - Cultural services; - Broadcasting and advertising services; - Religious and other community services.

Table 3: Area 10 in NABS 2007 classification

In addition, a widespread interest in the peculiar outcomes coming from these disciplines is also confirmed by the existence of a specific chapter for the cultural area "*Europe in a changing world – inclusive, innovative and reflective societies*" conveniently set in the Horizon 2020. This fact will enable research in the Humanities to develop its full potential in support of "reflective societies" and to promote, through our knowledge of the past, a greater understanding of the cultural and identity basis on which Europe can build its future. Table 3 provides a

synopsis of the funding distribution within the priority 3 (Societal Challenges) of the Horizon 2020 programme.

Health, demographic change and wellbeing	7 472
Food security, sustainable agriculture, marine and maritime research & the Bioeconomy	3 851
Secure, clean and efficient energy *	5 931
Smart, green and integrated transport	6 339
Climate action, resource efficiency and raw materials	3 081
Inclusive and reflective societies: transmission of European cultural heritage, uses of the past, 3D modelling for accessing EU cultural assets.	1 309
Secure societies	1 695
Science with and for society	462
Spreading excellence and widening participation	816

Table 4: Horizon 2020 priority 3 "Societal Challenges" funding distribution

A detailed account of each area in the Societal Challenges priority of Horizon 2020 is provided in Doel (2013).

5. Concluding remarks

Strong expectations in the Knowledge Economy set specific priorities not only for knowledge production, but also for knowledge diffusion.

Knowledge production is required to demonstrate its socio-economic commitments, while knowledge dissemination is required to resolutely move beyond the boundaries of scholarly communication and enter the sphere of the knowledge transfer outside the research community.

A strong attention is paid - considerably more than in the past - to the area of the Social Sciences and Humanities, and within this to the Humanities in particular, pushed (most likely) by a need of "sustainability" of research areas traditionally scarcely problem-solving

oriented and in general scarcely committed to societal demands.

Nevertheless, the other side of the debate should also mainstream an image evoked by Hermann Hesse, which, despite being in contrast to the current utilitarian logic, should always be borne in mind, especially in Europe and even more in Italy.

> True culture does not have a particular purpose but, like any quest for perfection, it finds meaning in itself. [...] the quest for "culture", that is for intellectual and spiritual betterment, is not a wearying journey towards a precise destination but rather a fortifying and beneficial enlargement of our consciousness, an enrichment of our potential for life and joy. (Hesse, 1929).

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4. Library-information and cultural policy models: *the model of Bulgaria*

Alexander Dimchev*

1. Introduction

The approach towards such studies could be found in foreign attempts for a normative base of regulation in times of globalization. A wide spread of new information technologies (NIT) at institutions subject to transformation, require flexible adaptation according to changes and expectations of the public, the economy, education, science and culture. Libraries as part of public agencies also undergo changes. Changes and challenges in the world of informatics, the internet media and the „economy of knowledge" calls for their adaptation to new roles and models of developments and action. Serious efforts are made for harmonization with new reality and needs, the turning of libraries into basic information centres for the general public. The best international models show that the state does not abdicate from its role of exercising its influence and impact in the field of culture and in particular in the sector of libraries, in particular in a global world, where information and access to it is of key importance for preserving national identity.

The interference of the state can be in various forms – normative, financial, protection, drawing up projects etc. In literature various models of regulation are considered. Thus, based on Chaterhunt and Markoffies's model, presents four possible approaches of state

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regulation concerning culture related processes:

- **The model of state culture ("The Engineer")** characteristic for the countries of the former socialist camp, where "culture and cultural hegemony is given a key position in the legitimating of socio-political system and the shaping of individuals. The state is the direct owner of cultural organizations and artistic means of production, imposing the respective ideological, moral, educational standards of culture. Its funding is largely dependent on policy. The „engineer" function does not disappear with the break-up of state socialism, however is largely marginalized and almost cannot be noted in liberal society, it becomes democratic and assumes new forms".

- **The Franco-Italian-German model ("The Architect")** with deep historical layers in the respective countries - characterized by the funding of culture is "to a high degree connected with the role of the state and its protectionism". "The state supports certain levels of artistic activities and fine arts, which becomes an important feature of a strong social state. A Ministry of Culture follows a certain cultural policy in supporting the national culture and spreading it around the world." A similar principle has been adopted in most of the countries in the European region. It has been characteristic to one or another degree in Bulgaria after 1878. "The State builds up a considerable part of the facilities and gathers a considerable part of the collections, determines the staff of cultural organizations etc. However, the choice of works of art to be realized is the right of artists, not the state..."

- **The British Model ("The Patron")** – "The state supports culture financially, however does not intervene in the content. In countries, which have adopted such policies"..., there is no minister of Culture, who is changed, with the change of Government and each Party proposes a specific cultural policy through the State administration. The only thing that is determined by the State is the general level of financial support, however not the organization who shall receive the funding. The intermediary between it and culture are "Art Councils" independent of the State.

- **The model in the USA ("The Catalyst")** – "The development

of culture is stimulated through a civil society" and this process is stimulated "through tax rebates for individuals, corporate bodies and non-profit organizations, i.e. donations which are not subject to taxation." American society has found "third way" between the State and the market, based much more on a varied and competitive civil society through which the funding of development of culture is realized. "Thus the need of the Ministry of culture is bypassed. In this way they also subsidize culture and demonstrate that it is not only market product, yet it is not through the direct impact of the state."

The presented models are valid to the same degree in the Library-information sector. Policies on library legislation, funding management and other segments related to its functioning are shaped, depending on accepted approach. Richard Rubin, one of the leading specialists in the field of librarianship and information policy in the USA, mentions the importance of clear rules and strategies which the library-information sector in a given country should follow. The policy could be in the field of the normative base regalements or practices, written or adopted, which would contribute and influence the creation, shaping, organization and spreading of information. Its manifestation is also sought in the degree of introduction contemporary technologies and those of funding, education levels and training of the necessary personnel etc. Most often information policies are debated concerning state legislation. In the USA it is usually focused in spheres like copyright, intellectual property, information technologies for educational and industrial needs, telecommunications, government information systems etc.

The discussion of information policies and their regulation is seen as an exceptionally important field. It is considered as vitally significant for the development of democracy, the protection of human rights, access to information, as well as an instrument for the reduction of tension countering the striving towards privatization of the information sector, a considerable source of income and an instrument for advancement.

"Democratic traditions presuppose the idea of the free flow of ideas as a basis for the prosperity of society, which does not mean that

capitalism and democracy are incompatible. On the contrary, this is a suggestion and a symbol, that information policy in a democratic society requires a balance of social, economic political interests". Rubin again is aware, for the above reasons that information is the decisive structure for decision taking, for action and development of society. State authorities and local government are obliged to realize these ideas by creating conditions for the gathering of information, its evaluation and dissemination.

Another classification I would suggest offers three models characterizing information policy with an emphasis on legislative measures, subsidies support for the library and information sector. The first model is characteristic for EU member states. It is correlated with active state participation and regulation. The second is typical for the USA and some other countries and could be referred to as a liberal one, with a lesser degree or rather 'invisible' state regulation. The third can be defined as a model of 'chaos', where there are no policies and steps on the part of the state, which leads to a lack of stability, inadequacy and weakness of the sector, thus it cannot meet the needs of social expectations.

I shall cite several examples. In various EU countries and some non EU countries at this phase in order to realize the strategy, adopted in the execution of the Bangemann report after 1995 national information strategies have been adopted. Most of them were formed as acts of the Government:

- Denmark - The Information Society in 2000;
- Finland - Strategy in the field of information;
- Germany - Aims of the Federal Government;
- The Netherlands - Vision for Acceleration (action plan);
- Portugal - National Initiative for an Information Society;
- Spain - National Programme for Development of Telematics Services;
- Sweden - Communications without borders;
- Great Britain - The Information Society – action plan;
- Eire - The Information Society, A Strategy for action;

- Romania - National Strategy for Informatization and Accelerated Entry in the Information Society;
- Bulgaria - Strategy for the Development of the Information Society in the Republic of Bulgaria and others.

The work of the European Commission to initiate and adopt important programme documents can be seen as successive steps in the policy in the information sector of the EU recently.

The Digital Agenda for Europe – DAE adopted in May 2010 is of particular interest in this respect. The Programme is part of the Strategy Europe 2020 and contains commitments for 101 specific policies for actions, structures in what is known as "the seven pylons". They are designed to overcome the barriers, which could block this valuable and considerable idea. The seven pylons are as follows:

- The creation of a dynamic digital unified market of online content and services (including unlimited and reliable European network of digital content);
- Operative compatibility and standards;
- Trust and security;
- High-speed and hyper-high-speed access to internet;
- Academic research and innovations;
- Increasing digital technology literacy, the skills for their use and inclusion in digital society;
- The uses of ICT for the public in the EU.

The Programme aims to stimulate the investment for the use of technologies and ensure active support for the digitalization of the wealth of the cultural heritage of Europe, in the shaping of global management of the Internet.

Digital Agenda for Europe was succeeded by another initiative *Digital Agenda: more open access to scientific information.* This plan, adopted on July 15th 2011 represents "a public consultation" with European researchers, engineers and entrepreneurs, to quote the words of Neelie Kroes and Maire Geoghegan-Queen, how to ensure more open access to scientific information in a digital form. The aim is to avoid the challenges and difficulties, owing to the growing prices of academic data

and the need of selection, evaluation and storage of their results. Scientists, researchers, financial organizations, universities and other interested groups are invited to send by 09.09.2011 their opinions how to improve Open access, defined as free access to research results through internet, recommendations and decisions following after this. *The Digital Plan - more open access to scientific information* shall help access to information and the multiple use of knowledge, which are the key aims of the *Digital Agenda for Europe* and of the *Innovation Union.*

- The successive EU initiative is the *Recommendation of the Commission on Digitalization and the Provision through Internet of Material in the Field of Culture* (October 27th 2011). This recommendation concerns the preservation of material in a digital form. The recommendations aim at achieving optimization though the use of information technologies to economic growth, the creation of employment jobs and the quality of life of European citizens as part of the Europe 2020 Strategy. Digitization and preservation of European cultural heritage, which includes printed matter (books, journals, newspapers), photographic material, museum exhibits, archival material, sound material and audiovisual material, monuments (referred of further down as „material in the field of culture"), are one of the key fields of digital technologies which the *Programme* deals with. European action in this respect, including the developing of *Europeana* - the European Digital library, archive and museum, were supported on many occasions by the European Parliament and the Council.

- At the end of 2011 the European Commission launched another important initiative - the *Open Data Strategy,* whose realization is expected to provide 40 billion annually for EU economy. Presenting the idea on December 12th 2011 Neelie Kroes, Vice President of the European Commission and responsible for the Digital Plan stated: "The enormous amount of information gathered from the public information services and the administration is a gold mine, whose economic potential has not yet been developed. Member states like Great Britain and France

are beginning to realize this wealth. The strategy for increasing the results in the entire EU is in three digits. In the first place the Commission shall set an example by providing free access to its data through a new portal. In the second place harmonized conditions for competition for data at free access shall be created. Finally these new measures shall be supported by 100 million Euros for the 2011-2013 period, turning the EU into a world leader in the secondary user of information which the public sector has at its disposal. This shall stimulate the flourishing of the raw data into material, necessary for tens of millions users of information and communication technologies, regardless whether we have in mind smart phones as geographic maps, topical information for traffic, and met information, devices for price comparisons or anything else. Considerable users of this information shall be journalists and university lecturers".

According to N. Kroes: "Today we are sending a clear signal to the public sector. The information we have at our disposal, shall have a higher value if it is given to others, so that through this connection you begin to use this frame, in order to join leaders with foresight, who already received the fruits of their approach towards an open access. Taxpayers have already paid for it, so the least we can do is to put it back at the disposal of those who wish to use it for the benefit of people and the creation of work places and wealth".

The Strategy shall allow anyone once or many times to use or disseminate free access for general information or at a minimum price.

Libraries are also given a particular place in the EU documents by the EU member states. This active policy has continued over the years expressed in new strategies and programmes. Documents are issued in particular for libraries, defining their role and place in society. They are a major step in the development of the library sector and a catalyst in shaping the new vision and mission of libraries. At the European model, regardless of the differences in the development of library infrastructures, legal regulations and the levers of development of libraries over the years, gradually there is an overlapping of the strategies for influence over the library sector resulting in Euro-

integration processes and in the search for common policies (which is referred to as collaboration between sectors). Initiation of projects and general recommendations for regulation lead to building closer views. A tendency has emerged of dropping of purely specialized library programmes. Support for the sector is included in the context of general policies and programme platforms of the European Union, while ideas for libraries are reflected in the aims of Europe 2020 – 'the digital society', 'education', 'competition', in the Horizon programme and elsewhere, all of them initiatives in the European region.

Considering the theme which we are examining, the *Europeana Library* is the major initiative. The aim of *Europeana* is to combine in one and the same portal electronic documents, artifacts and other digitized rare and unique materials together with images, film materials, multicultural collections in many languages, all these stored and kept at libraries, museums, archives, cultural institutions etc. The library provides information in twenty one languages. At its official opening Viviane Redding, member of the European Commission responsible for Information Society and Media said: "This is the beginning of an incredible adventure, which shall allow us to reach all cultural treasures, lost in European libraries, museums and archival institutions." It shall become an accumulation of about 10 million electronic documents. The project is considered an important one and a source of influence from a political point of view. According to Jose Manuel Barroso, President of the European Commision, *Europeana* is "more than a library". New versions of library development and new functions aiming at expanding its potential, scope and services are planned. Special funding is proposed from European funds and by member states. Viviane Reddng justifies the thesis that the European Commission shall create "a network of many digital libraries in various institutions in Europe". These libraries "will give the citizens online access to books, to local historical records, to archive films, and museum objects – and provide services so they can use them. If you like we are creating a virtual temple. If you like, we are creating a virtual temple where the libraries are the pillars and Europe

supports the structures that hold them together. In other words, our added-value is in promoting and sharing the vision, and in helping realise it. This means cooperating to avoid duplication, cooperating in networking and standards, cooperating in developing common and more cost-effective solutions. At the same time I will encourage the member states to develop, strengthen and increase their own pillar".

The awareness of the need of these digital libraries at a European level means work on three main problems:

Digitalization - with the presumption to present documents of the past online, digital libraries of the future should possess digital material in an increasing scope formats, for instance audio images, still and mobile images, 3D graphic dynamic web-sites;

Network access to resources - users expect that books and articles shall be supplied on the web and shall not require their physical visit to the library, in order to consult an electronic publication;

Preservation and archiving of digital resources. Digital material requires maintenance, in order to keep them functioning, otherwise they may be lost because of quick changes of hardware and software, or because their physical carriers (for instance CD-ROM) get damaged. This is a shock for most users, especially those with digital cameras, however the librarian community accepted the problem years ago and is searching how to deal with it.

Ideas for the streamlining of the activities of the *Europeana Library* as well as its coordination with other projects among them the *Global World Library* is continuing.

The *Recommendation of the Commission on Digitalization and the Provision through Internet of Material in the Field of Culture* (October 27th 2011) is expected to have a serious impact on the future development of *Europeana*. It gives a substantial place to responsible

actions which the member states must resolve concerning the electronic library. The further advancement of the *Europeana* platform shall depend to a great extent on how the member states and their cultural institutions supply it with content and direct the attention the public towards it. Measures for achieving this aim should be encouraged. Towards the end of 2011 *Europeana* shall provide direct access to over 19 million digitalized objects. Only 2 percent of these sites are audio or audiovisual materials. An increase to the content accessible through *Europeana*, including the types of material, which at present are less represented, shall make the platforms more interesting for the users. The common aim the number of objects to reach 30 million by 2015 is in accordance with the *Europeana* strategy plan, and represents an important phase in the digitization process of the European cultural heritage by 2025.

Ensuring access through *Europeana* to all masterpieces, (and giving public access to the main cultural and historical material and sites, chosen and selected by the member states) shall enrich the content of the platform in accordance with the expectation of the users. By issuing rules in the member states, ensuring access through *Europeana* to all important material digitized with public funds shall make the development of the library quicker and create a clear framework for the participation of cultural institutions with content; hence the introduction of such rules should be encouraged. For the realization of the policies connected with the further development of *Europeana* the states should undertake the following:

- Encouraging cultural institutions, publishers and other copyright holders to provide access to their digitized material through *Europeana*, thus supporting the provision of access through *Europeana* to 30 million digitized objects to 2015, including two million audio and audiovisual objects;
- Making accessibility through *Europeana* an obligatory condition for future publicly financed digitization projects;

- Ensuring no later than 2015 access through *Europeana* to all masterpieces which are public property;
- Creating or consolidating national "aggregators", providing in *Europeana* content from various fields and participation in trans-border aggregators in concrete fields or on fixed themes, which might lead to economies;
- Ensuring the application of common standards for digitization, defined by *Europeana* in coordination with cultural institutions, with the aim to achieve interoperability of the digitalized material on a European level, as well as systematic use of identifiers;
- Ensuring broad and unlimited access to existing metadata (descriptions of digitized objects), obtained from cultural institutions, with the aim of their reuse through services of the *Europeana* type and through other applications;
- Drawing up plans for an information campaign with the aim of spreading information about *Europeana* before the public, and in particular in schools, in cooperation with cultural institutions, which provide content.

Thus in the indicative aims for the minimum contributions placed before the member-states, Bulgaria should ensure digitization and access up to 267 000 objects by 2015. By 2013 about 45 000 documents have been digitized for the needs of the European Library.

A key element for the successful development of libraries, library networks and services is the existing library legislation of the respective country. The European Union is aware of the importance of suitable and adequate library legislation. For this reason *Council of Europe/EBLIDA Guidelines on library legislation and policy in Europe* (2000) were developed and adopted by Council of Europe Culture Committee and Council of cultural Co-operation. The *Guidelines* were also endorsed by the International Federation of Library Associations and Institutions (IFLA). They were prepared after an in-depth study and analysis of the

experience in various countries in Europe. It is a summary of the best practices, leading norms and fields of regulation. The recommendation is not obligatory and Governments are not obliged to carry them out. They aim to serve as guidelines for the legislative bodies, politicians and professionals, entrusted with the working out of legal instruments and government policies and strategies, affecting libraries and other information institutions.

Beyond common policies in the EU and depending on their understanding on the significance of libraries and information, traditions and attitudes to the library sector these countries have a policy of their own and their own legal and financial frame. In this respect the efforts of countries like Great Britain, Germany, France, Denmark, and Finland etc. are greatly responsible.

The information policy of the USA, defined as liberal, with 'invisible' state regulation was formulated by Jean-Noël Jeanneney in his work *Quand Google défie l'Europe: plaidoyer pour un sursaut* as follows: "Europe (together with the poor countries) is well aware that the USA when it serves them, very well know how not to take into consideration the principle that "everything depends on the market" ...Internet was not born in the various spheres of capitalism, rather in response of the current needs of the military and the dreams of the academic community. Later, on our continent, owing to the efforts of CERN, the European Centre for Universities Studies, the design and release of the World Wide Web arrived on the scene, after a strong impulse coming Tim Berners-Lee, early in the 90. Google itself, which claims to represent the entire trade network, was "born" in 1998 at Stanford University in California, where Sergey Brin and Larry Page studied informatics, assisted by special Federal funds gathered above all by the National Science Foundation. However it is rarely mentioned that only after an initiative showed it has prospects risk capital begin to invest in it".

In line with this position we should note that the exceptional role for the development of various spheres of society, including the library-information sector and the realization of revolutionary transformations in it was due to National Information Infrastructure (NII). The initiative was undertaken in 1993 by the administration of the presidential couple Clinton and Gore and had a revolutionary significance for the development of technologies, business and access to information. In its mission NII was working to allow USA and companies to compete and win in a global economy, generating competitive work places for Americans and contribute to the economic growth of the country. NII also aimed to change the quality of life for Americans (reducing restrictions connected with location, impairment, an increase of the economic status, ensuring to all Americans possibilities for development etc.) In order to realize the initiative the presidents' administration proposed legislative and administrative reforms. The project played an exceptional role for changes in the approach to development of libraries and the services they offer.

Liberal legislation was a serious factor for the success of librarianship in the USA It allowed the creation of various configurations, initiative of cooperation, consortia, coordination plans, networks etc. Especially an Institute for Museums and Library Services was formed through Museum and Library Services Act of 1996, with the task to fund libraries and museums engaged in programmes of national significance. About 150-180 million dollars are allocated annually for the realisation of library programmes.

Normative regulations have been introduced at the state level to organize library activities. Every state has specific legislation for its own library policy. Documents empowering authorities are the next level and they relate chiefly to public, academic and school libraries. They can adopt certain documents which contradict State Library Law, i.e. in the responsibilities of trustees or the discretion of information for library documents and services provided to users etc. In most normative

documents the idea of cooperation and coordination and building of networks between various libraries comes out. All this led to the building up of an effective freely coordinated library-information system.

Still another project should be pointed out, supported by the Government namely the World Digital Library. The idea came from the Library of Congress of the USA At its very start the World Library has been working in seven languages - English, Russian, French, Spanish, Portuguese Chinese and Arabic, but also includes documents in over 40 languages. The aim was allowing the initiative to provide free access through Internet technology to library units within the world library centres. The project is run jointly with UNESCO and 32 partners from various countries.

In support of the serous investment in the library sector in the USA I shall cite the view of Frieda Weise, the Executive Director of University of Maryland Health Sciences and Human Services Library in Baltimore. In her article "Being there: the library as place" she reminds us of the following facts: "As Mark Twain once stated, the reports of my death are greatly exaggerated." Libraries continue to be built and renovated at a good pace. *American Libraries* reports that nationwide expenditures for public library construction and renovation have been between $500 million to $700 million per year for the last six years. Sources of funding have shifted, however, from state and federal (5%) to largely local (87%), with charitable funding coming in a distant second (8%). In the academic arena, there were 146 new libraries and 148 renovations and reconfigurations between 1995 and 2002."

The approach of the Barack Obama administration, connected with the crisis and support of library is interesting. At the presentation of the Federal budget for 2010 before Congress he stated: "In order to give our children a good headstart for success in the global economy in the Information age, we shall equip thousands of schools… and universities with classrooms … and libraries, worthy of the 21st century'."

Making an analysis of various models, connected with regulation of the library sector, we should also consider the role of international organizations. IFLA and UNESCO programmes exercise a serious impact and are a catalyst for normative regulation, development, unification, and transformation of the library sector and library networks in separate countries. UNESCO recommendations from the World Summit on the Information Society (WSIS), 2005, Tunisia, reflected in the document "From an Information Society to Knowledge Society" are of particular importance in this respect. The importance of libraries for the development of society and the passing towards the economy of knowledge is defined in them. Libraries are defined as base centres for the storage, generation and spread of information, for the application new information technologies, which are entrusted important social tasks – to work for the overcoming of information illiteracy, technological backwardness and digital isolation, expanding the democratization of access to information etc. They are obliged to be irreversible subjects in education and scientific policy. They should be among the generators and those who initiate change in the communication channels in the information sphere. Libraries also have the enormous responsibility to preserve and digitalize the documentary heritage, which has preserved the achievements of humanity. The UNESCO document points out that in order to realize these great obligations, governments and institutions in separate countries should follow a responsible policy for the development of the library sector both on a national scale, and in participating in library-information organizations and networks in the global exchange of information.

2. Characteristic Features of the Bulgarian: Library Sector Following 1990

What have been the trends in the Bulgarian library sector during the transition period? Since 1990, there has been no serious or clear-cut government policy on the libraries, the information

sector or the information infrastructure. During the transition period, the library-and-information support provided to the Bulgarian sciences dropped far behind that in the leading countries, as well as in the Central and Eastern European countries, with which our library-and-information system used to be commensurate. During the first years of this period, the information that the Bulgarian scholars received on the [world] scientific achievements was 30-40 times less than that received by their colleagues in the said countries. Due to the lack of any strategy or policy on the development of this sector, to the financial problems and the demographic crisis, over 4,000 libraries and information centres were closed, out of the 9,800 existing in 1989. Some of these had been inefficient and it was only natural to shut them down.[7] Unfortunately, there were good libraries and information units that had to close down, too, which had an adverse effect on the quality of information and the information support that was provided to the population. In the Millennium Report, that was written up by some European institutions (1999), Bulgaria was ranked last of all the European countries on the basis of key library funding and development parameters. By the year 2009, Bulgaria was the only European country that had no library regulation act. Due to financial constraints, the new services and technologies find it difficult to make their way. Only 13% of the Bulgarian population use the libraries, which is fairly low as compared to some other European states. However, there has been a positive trend which indicates that the share of the young library users accounts for 70% of all the library patrons.

In the period following 1990, the Bulgarian library college made an attempt to start modernizing the library sector by joining efforts to preserve everything that had been achieved thus far in order to stop the disintegration of the library network. These were the joint efforts of the Union of Librarians and Information Services in Bulgaria (today's Bulgarian Library-and-Information Association), the Open Society Foundation, the British Council, the US Information Centre, Goethe Institute, and some others. The resulting library projects were in harmony with the international trends, as they employed

economically profitable and efficient patterns of action, aimed at restructuring and modernizing the library infrastructure. They were all based on the EU policies and modern practices in this area. Among the most significant projects and initiatives worth mentioning here are:

- ***The Libraries Act Project (1993);***
- ***The COMPACT DISC Project (1994);***
- ***A project entitled "Establishment and Development of a National Library-Information Network" (1993);***
- ***A project entitled "National Program for Preserving the National Library Collections" (1997);***
- ***A library legislation project (1997);***
- ***A megaproject entitled "A Chance for Bulgarian Libraries in the 21st Century"* (1999);**
- ***The establishment of a "National Lifelong Learning Centre for Librarians" (2000), etc.***

It is regrettable to note, however, that the government institutions abandoned their commitments to provide financial support during the implementation of these projects. In this way, we missed a lot of opportunities, as well as funds, that were offered by some sponsors and international organizations. All this made the Bulgarian libraries and the whole information sector fall behind the times. If we had not received any support from our foreign partners or, if they had not exerted any pressure, nothing would have been done by the government, as the Bulgarian experts were not trusted.

Between 2006 and 2009, some changes were introduced to the Bulgarian information policy and library sector but, very soon, everything went back to where it had begun.

- In 2009, the Bulgarian Parliament adopted the ***Public Libraries Act*** (drafted under a project jointly implemented by the Bulgarian Library-and-Information Association (BLIA), the Ministry of Culture, and the British Council in Bulgaria). The objective of this act is to regulate the relations between the public libraries in the country, including the National Library,

the regional libraries (27 in number), and the municipal and *chitalishte* libraries (about 2,800). It also aimed to regulate the establishment of a public libraries network.

- In 2009, a ***national scientific data base subscription consortium*** was set up. The subscribed information resources are to guarantee access of some 55 Bulgarian universities and research institutes to the information platforms of: ELSEVIER (Holland), with respect to: Science Direct, Scopus, Engineering Village, Embase.com; THOMSON REUTER SERVICES (Great Britain), with respect to ISI Web of Knowledge, etc., and ProQuest Central (Great Britain). The implementation of this idea is regarded as a valuable contribution to Bulgarian education and science.
- ***Delegated budgets to the Bulgarian libraries.*** This idea is implemented on the basis of a government decree that is adopted by the Bulgarian government every year for the purpose of providing additional funds to some activities and individual economic sectors (the public libraries included). In this way, the funds that are allotted to the libraries are considered to be more stable. The additional financial support is provided in the form of a subsidy which is to cover the monthly wages of the library staff, along with some specific activities. Over the past two years, however, this subsidy has been reduced by 30%, which has seriously affected the subsidized library activities.
- ***"Books for the libraries" project.*** This initiative of the Bulgarian Ministry of Culture is implemented under a project entitled "The Bulgarian libraries as modern awareness-raising and reading centres". The idea is to provide to the libraries additional funding, so that they could further develop and enrich their collections by purchasing new books and other information resources. From a social perspective, this project is to revive the interest of the people in reading books, and to help the libraries turn into major spiritual centres that provide

knowledge and information. Participation in this project is open to everybody on a competitive basis. In 2007 the Ministry of Culture disbursed BGN 1,999,892 which were distributed among 1,317 libraries. In 2008, the funds amounted to BGN 3 million. In 2009, however, the funding was suspended on account of the financial crisis. In 2011, the financial resources were about five times less than those allocated in 2008, while the 2012 amount is expected to reach some BGN 2 million.

- In 2008 ***the Bill and Melinda Gates Foundation*** launched ***the Global Libraries – Bulgaria program*** in which the Bulgarian Ministry of Culture and the Bulgarian Library-and-Information Association (BLIA) are the major partners on the Bulgarian side. By the end of 2011, financial resources were allocated to 960 public libraries in 895 settlements, so that these libraries could be transformed into local information centres. Special training resources have been developed for the training of 3,000 librarians. The total budget amounts to some $ 15 million. The ultimate objective of the Bulgarian program is to help modernize the Bulgarian libraries, as well as to enhance their role, responsibilities and influence in society. In addition, this program aims to introduce new information technologies on a large sale, to overcome the information inequality by providing Internet access to the population, as well as to encourage the Bulgarian citizens to participate in the governance of the country and the social cohesion, thus becoming part and parcel of the global information society. The public libraries have been assigned the role of making the information and the communications accessible to as many people as possible by providing them with free access to computers, to information, and to the Internet. By the early 2012, all this had been achieved with respect to 960 libraries, which is a notable attainment in a period of crisis. There has been yet another positive development, as the conditions for the further development of this project were renegotiated for another couple of years. In

2012, during a state visit of the Bulgarian President, Rossen Plevneliev, to the USA, the president of the Bill and Melinda Gates Foundation, Bill Gates, made a commitment to provide the necessary funds.

- **It is a positive fact that the higher education in the library-Information sciences area is reliable and up to the international standards.** This education comprises the three educational degrees: Bachelor's degree, Master's degree and doctoral degree. In addition, special training courses are organized to satisfy the needs of the small public libraries, which need "qualifications received at a college of further education".
- **The Bulgarian National Library together with some other big libraries in the country, are already members of *Europeana*.** Bulgaria has made a commitment to display in *Europeana* 257,000 digitized documents by 2015.
- **The National Academic Library-Information System project.** Since 2009, the central library of the Bulgarian Academy of Sciences, the university library of Sofia University, as well as another 24 academic libraries from all over the country, have been implementing a project for the establishment of a National Academic Library-Information System (NALIS). This project is carried out with the financial support of the America for Bulgaria Foundation. The ultimate objective is to compile a union catalogue, which will make it possible for these libraries to exchange data and resources on both local and international level. At the end of 2012, the NALIS union catalogue comprised over 1,542,000 bibliographic records of the participating libraries.[37]
- In 2012, a BLIA expert team presented a draft document entitled **"National strategy and program for the preservation of, and provision of access to, the literary cultural heritage of the Bulgarian libraries"**.[31, 38] This document was based on a study carried out of 81 libraries throughout the country in

2011. The draft document is going to be discussed publicly by the stakeholder institutions. There is a digitization process going on in the National Library, in two university libraries (Sofia University and the University of Shoumen), in three libraries of the Bulgarian Academy of Sciences, as well as in 12 regional and one *chitalishte* libraries. In 2011, the total number of digitized documents was about 13,000. According to the information available from this study, the Bulgarian libraries are still at the initial stage of digitization. However, the number of documents in a digital format is insignificant with respect to the total volume of existing valuable collections. It comprises only 4.9% of the manuscripts, 4.8% of the old-printed books, 16.2% of the "revival" periodicals, 1.2% of the periodicals from the period 1878-1944, and 0.2% of the archival documents. These percentages are still fairly low as compared to the volumes provided for display in the *Europeana* by some other European countries.

Library-and-information related entities that have to assume a role in the management of this sector and, more particularly, in the management of processes in the information generation and exchange area and in the utilization of knowledge. Most significant among these are:

- **The Ministry of Culture.** It is responsible for the national policy in the library sector. It coordinates and co-funds the establishment of the National Automated Library-Information Network. It is responsible for the implementation of the Global Libraries Project. It co-funds the capacity strengthening and the improvement of resources of the public libraries. It coordinates [on a local level] the implementation of the international projects with Bulgarian participation. It formulates the [national] policy on the cultural heritage digitization, etc.
- **The Ministry of Education, Science and Youth**. Itis assigned the task to finance and legally regulate projects, activities, standards, and

norms related to the operations of the universities and the scientific organizations with respect to the information they have to be collect, store and provide, in order to be able to satisfy the needs of education and science (scientific and research registers; project registers; a researcher and scholar register; a scientific repository register; etc.); to formulate the requirements to the university libraries; to organize data base consortia, etc. It is also responsible for the legal regulation of the school libraries.

- **The Bulgarian Library-Information Association (BLIA).** BLIA has a major place in, and role for, the development and strengthening of the library sector. It implements a number of ideas and projects on a national and international level. In cooperation with other partners, BLIA has contributed to the implementation of the most important library initiatives and projects in the past 22 years. These include: the drafting of statutory acts (the Public Libraries Act, the Legal Deposits Act, etc.); support in the establishment of the National Automated Library-Information Network; some other initiatives including: training courses for librarians; programs for preservation and digitization of the national literary heritage; different undertakings involving project, expert, research, information, lobbying and advocacy activity to the benefit of the libraries, etc. BLIA is a partner in the implementation of the Global Libraries Project.
- **The St. Cyril and Methodius National Library.** This library maintains the national bibliography. It introduces and coordinates the COBISS project on a national level and has converted about 900, 000 bibliographic records. It digitizes part of the national documentary heritage and has already digitized 40,000 files. It participates in *Europeana*, as well as in some other information exchange projects and networks.
- **The universities and the university libraries.** They maintain and provide to the users information resources. They create electronic depots for open access to the information (needed for scientific research, for the academic publications, and for the training

materials, documentation, lectures, etc.). They digitize documents and participate in automated information exchange networks, as well as in information associations and consortia. Some of them take part in the establishment of the National Automated Library-and-Information System (NALIS).

- **Scientific organizations and major scientific libraries.** Their function is to organize their information resources and collections and to participate in repositories containing scientific research information, research projects, publications, etc. To digitize documents; to join automated information exchange networks; to participate in information associations and consortia. Some of them participate in the establishment of the National Automated Library-Information System (NALIS).
- **27 regional libraries.** They have to maintain collections in order to be able to provide to the users in the relevant regions library-information services; to develop the automation processes and to introduce new information technologies; to participate in library-and-information networks and associations; to digitize documents of public interest, especially those in the area of ethnology; to store and present the regional cultural heritage.

3. Conclusion

The discussion of information policies and their regulation is seen as an exceptionally important field. It is considered as vitally significant for the development of democracy, the protection of human rights, access to information, as well as an instrument for the reduction of tension countering the striving towards privatization of the information sector, a considerable source of income and an instrument for advancement. Democratic traditions presuppose the idea of the free flow of ideas as a basis for the prosperity of society, which does not mean that capitalism and democracy are incompatible. On the contrary, this is a suggestion and a symbol, that information policy in a

democratic society requires a balance of social, economic political interests". Many authors aware, for the above reasons that information is the decisive structure for decision taking, for action and development of society. State authorities and local government are obliged to realize these ideas by creating conditions for the gathering of information, its evaluation and dissemination.

4. Notes

The Report of the American Library Association "Tendencies in Academic Libraries for the Period 1998-2008" provides information both on University libraries and the increased need of these libraries. The need of library services in American universities and colleges has grown. The emphasis of the survey brings out the following:

- The total number of academic libraries has grown by 6.9% for the period.
- The total number of library staff has fallen slightly (-1.6%). In some categories there have been considerable changes:
  - The number of librarians has grown by 10.1%;
  - The number of other categories of professional staff has grown by 57.7%;
  - Non-professional staff has fallen by 5.8%;
  - The number of assistant-students has fallen by 11.9%;
  - Generally expenditure for academic libraries has grown by 48.5%;
  - Salaries have grown by 30.6%;
  - Funding for information resources has shown a considerable increase of 134.9%;
  - In spite of that salaries as a percentage of all expenditure have fallen by 5.9% for a 10 year period;
  - Lending of books has fallen by 20.9% for the 1998-2008 period, while borrowing from the teaching material collection has grown by 2.7%;

- Inter-library loan (ILL) has increased by 54%;
- The working hours of libraries for users have been increased.

As a whole library collections for the 1998-2008 have increased as follows:

- There is a 20.2% increase in books, bound journals and other printed documents;
- There is a 898.3% increase in electronic books;
- There is a 92% increase micro copies;
- There is a 244.6% increase in current subscription (including electronic subscriptions);
- There is a 19.6% increase of audio-visual material;
- There is a 92.6% increase of electronic reference books and aggregated data bases.

The report confirms the greater need of the presence of libraries in universities.

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5. The Evaluation of Research in the Humanities: A Comparative Analysis

Chiara Faggiolani*
Giovanni Solimine**

SUMMARY: Abstract; 1. Introduction; 2. The products of research within the Humanities: how, which, how many; 3. The citation behavior: the quality and importance of citations; 4. Conclusions; References.

Abstract: This paper presents the objectives, the methodologies and the preliminary results of an in-progress investigation into the evaluation of research in the humanities, through experimentation in philological-literary and historical-artistic sciences, utilizing the University of Rome Sapienza institutional database, which systematically collects scientifically produced data of the teaching and research staff of the University.

The premise of the survey is that the humanities do not enjoy a special status by virtue of which it can be exempt from bibliometric analysis: internal quality of the research itself, the impact and the importance in the scientific community are all characteristics which belong to the physical sciences as well as to the humanities.

The objective of the research is to develop some tools for evaluating the research that are consistent with the evaluation criteria used in the physical sciences, through the integration of quantitative, qualitative and biblioteconomic tools.

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1. Introduction

The current consensus is that there is the need to isolate criteria that can objectively measure the scientific output of professors, researchers and the structures (universities and departments) in which they work from a quantitative point of view and analyze them from a qualitative point of view. In this way the value and impact of what the university produces can be discovered.

With this goal, in 2010 in Italy, the national Agency for the evaluation of University structures and research organizations (ANVUR) was instituted. ANVUR currently runs the second organization for the evaluation of the quality of research (VQR) in effect from 2004-2010, involving over 68.000 professors and researchers within universities and research organizations: the results of this articulated process, that will mobilize approximately ten thousand evaluators, will have an effect on the national level for the distribution of standard financial funding.

Methods and criteria adopted in these circumstances have been amply criticized by many sources, most particularly those in the humanistic disciplines. In Italy the scientific communities associated with human sciences have only recently begun to adopt a methodology of research evaluation, believing even now that peer review is the only instrument of assessment possible, refusing any prospective of bibliometric analysis. One must recognize, with the current state of affairs, by using the existing bibliographic databases, this approach proves to be inaccurate (Baccini, 2010).

To apply bibliometric analysis to the research produced in humanities effectively seems forced, since it is undeniable that this type of methodology, born around 1950 and based on characteristics of the hard sciences, pushes the research toward models of publication to which it does not belong. This could be dangerous and penalizing, in time, causing a deterioration of the quality of research due to a change in strategy.

For this reason it is necessary to put in place a system of evaluation which respects the specificity of diverse subjects and their

unique means of dissemination.

Departing with this assumption, during 2012, this research was undertaken with the goal of individualizing a set of instruments compatible with evaluation of the humanistic subjects, built based on their specific needs.

The first step in this research was a deeper analysis of the scientific sectors afferent to the humanities: one must remember, in fact, that within the same field, even with the use of a rather homogeneous methodology, the individual sectors are characterized by different results and different citation practices.

Does it make sense to adopt the same measurement criteria for a group of diverse subjects just because they are part of the humanistic field? Are we certain that such a choice would not end up causing damage to a considerable part of the humanistic disciplines?

The paper wishes to respond to these questions by presenting data obtained from an experiment in the field of philological-literary and historical-artistic sciences, with the institutional database of the University of Rome – Sapienza, that gathers data of scientific output of professors and researchers of the university in a systematic way.

2. The products of research within the Humanities: how, which, how many

The first problem to face in our opinion is not the methodology, but instead, the object of the evaluation: once delineated, in fact, the decision of which method to use is rather automatic.

Research in the humanities is structurally different than those produced by hard sciences (Faggiolani, Solimine, 2012): the first substantial difference being the methods of publication.

Research outputs in the HSS include articles published in international and national journals, academic book chapters, books and non-published outputs such as archaeological excavations, exhibitions etc. (Hicks, 2004).

An article in a review – traditionally the means of measuring impact indicators (IF, for example) – is not the most widely used form of publication among the humanistic field. Books have a preeminent role which is traced to the cumulative nature of humanistic knowledge that comes from in depth study rather than the quick perusing that occurs, instead, in Scientific/Technology fields.

An article, therefore, for a researcher in the Humanistic fields is only the introduction to a much deeper reflection, needing more development through research and wider ranging works.

In comparison, we offer for the sake of example, the scientific output presented to the VQR from area 10 of philological-literary and historical-artistic sciences (figure 1) and from area 2 of physics (figure 2) of our university, which seem to prove this assertion.

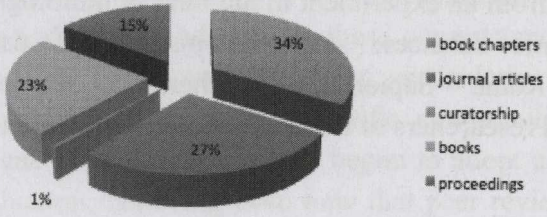

Figure 1: Area 10 – Philological-literary and historical-artistic sciences – VQR research output

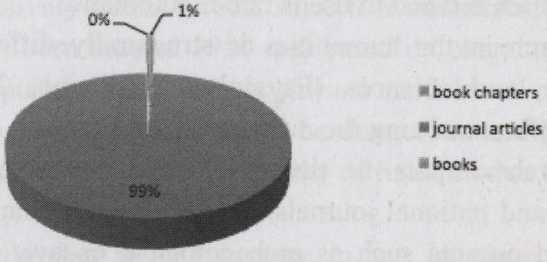

Figure 2: Area 2- Physics – VQR research output

For this purpose it is interesting to note that the selected publications for the VQR are fruit of self-evaluation by the subjects assessed and which represent the output deemed of best quality: therefore, if in general, monographic works represent 9% of publications, we observe that when researchers were required to evaluate their best works, this percentage increased to 23%. These results underline the direct effect of evaluation which then provides for better research.

Not only: there are substantial differences also within the same area 10 where we find sectors such as Modern Italian Literature (L-FIL-LET/11) that favor the monograph as the most used form of publication and others, such as the Language sector and Latin Literature (L-FIL-LET/04), which express themselves best with journal articles (figure 3).

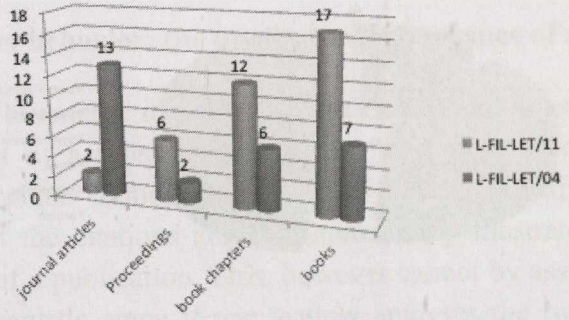

Figure 3: comparison between Italian Literature and Language and Latin Literature: VQR research output

By merit of journal articles, the panorama of results become more composite: from 242 articles that were presented to the entire area 10 for the VQR, only 17 were publicized in journals indexed by the Web of Science (WoS), from which it is possible to calculate the IF, the greater part belonging to the sectors of Prehistory and Protohistory (L-ANT/01). One must understand that with studies of prehistoric and protohistoric populations, analysis comes from an archeological, ethnographic and ecological point of view, making one's methodology

more similar to biology rather than to philological-literary and historical-artistic sciences.

The scarce indexing on the WoS of journal articles produced by these disciplines demonstrates yet another characteristic of the Humanities; that is, the native language is the preferred language of communication: the objects of study in these disciplines are often issues of local importance and character. They tend to be highly rooted in their context, a phenomenon which does not occur in the Hard Sciences. The use of the native language in contrast to English guarantees a better understanding and impact within its own scientific community.

In the area of the Philological-literary and historical-artistic sciences from a total of 6.227 outputs between 2004 and 2010, the publications written in a language other than Italian are only 21%, divided as is shown below (figure 4).

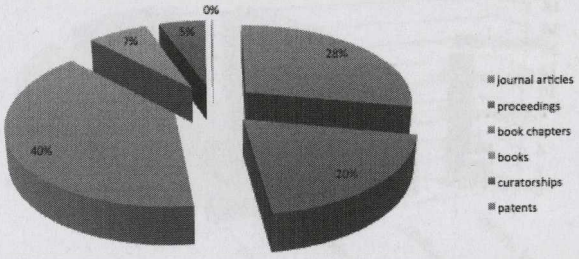

Figure 4: publications in a foreign language

In general, from 2004-2010, the researchers and professors in area 10 of the University have publicized in 714 different journals of which only 19% are within category A, demonstrating how diverse and compound the panorama of the editorial offices is (figure 5).

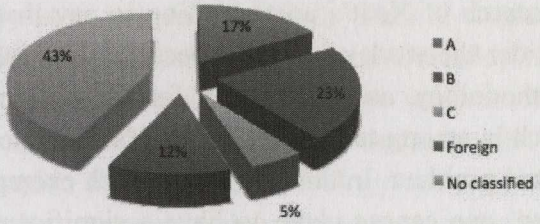

Figure 5: classification of journals

Only 142 of the 6.226 publications produced are in digital format (2,28% of the total), statistics to keep in consideration with regard to the application of use indicators, WIF – Web Impact Factor (Ingwersen, 1998; Noruzi, 2006) e UF - Usage Factor.

3. The citation behavior: the quality and importance of citations

The bibliometric indicators are based up citation as the synthesis of the impact of a scientific work: the "normative theory" (Merton, 1998) from which bibliometric analysis is derived, affirms that the calculation of the citations almost automatically illustrates the impact and prestige of a publication. This, however cannot by assumed as valid within a humanistic arena if one acutely analyses the two dimensions connected to the mechanism of the citation: the quality of the citation, which involves also the citation behavior and the temporal dimension, and its importance.

There are several different parameters which affect citation behavior, some are of a social nature, among which, for example, are the temporal dimension, the prestige of the author, and last, but not least, the context of the discipline that is being referenced.

In our disciplines, in fact, it is not sufficient to count the citations, because they do not always correspond to a judgment of merit in a positive manner such as the IF which does not distinguish between positive citations, negative citations and citations of one's self: it's one

thing to say that a researcher's work is based on the fundamental and pioneering research of X, it's another thing to say that the same work does not consider the work of Y valid because the results are based on erroneous methodology, and yet another for the same researcher to cite Z's work which is among tens of other authors as one of many who has studied the same problem. In this last case, which exemplifies a frequent type of citation, one cannot claim to have a significant impact, on the contrary, we are not even able to deduce if the work of Z has been read or not.

Moreover, the scientific worth of a work in the humanistic field lasts years and its impact is measurable only over a long period of time; at least 10 to 20 years.

If the advancement in research in the natural sciences proceeds with the surpassing of the previous research, in the Humanities research proceeds with progressive accumulation and in-depth study. It is for this reason that the traditional bibliometric indicators that use a time period that is rather short, from two to five years (such as the IF or the 5-year IF) one can mention the lack of historical perspective, that ultimately, is a peculiar trait of every reflection of humanistic expression.

In synthesis, every citation behavior is diverse within the each human and social science thus causing Nederhof to conclude that such a specification would require bibliometric technicians to adapt themselves, distancing themselves from the criteria used for basic Sciences (Nederhof, 2006).

Besides the quality of the citation, another aspect that strongly influences the impact that the citation can have is the size of the different scientific communities.

In academic environments with a wide number of researchers and therefore a large number of research output, there will be consistent citation data. On the contrary, in certain sectors of the Human Sciences, where there are few researchers and a relatively reduced output, the chance of altering citation data through consortia agreements becomes very likely, and is considered almost certain.

Regarding this, one must remember that the manipulation of

citation data is considered a problem of primary importance for the bibliometric analysis in general, especially when a single researcher is involved as Garfield himself has made evident (Garfield, 2006).

For example, in the case of the IF, the importance attributed to the citations should not be the same for sectors with very diverse dimensions: a citation in the ethnomusicology sector (L-ART/08), that has only 18 members (among which researchers, associated professors and tenured professors), cannot have the same importance of a citation in the theatrical field that has 102 members[1]. In the first case we can affirm that a citation received has less importance than in the second case, always keeping in mind that both sectors belong to the same macro-sector applicant pool.

It is necessary, therefore, to ask one's self if the use of evaluation instruments that depend upon citation analysis of smaller discipline sectors might not provide a strong incentive to adopt opportunistic practices that, due to the size of the group of researchers under evaluation, could effectively reorient the outcome of the evaluation itself.

The last aspect to take into consideration regarding the citation behavior in the Humanistic field, as opposed to the Hard Sciences, is the much less frequent use of publishing writings in collaboration between multiple authors. Co-authored works are cited more often, effectively increasing, as noted, the impact of the publications themselves.

Only 12% of total publications in the area in question were written by two or more authors as show in the figure below (figure 6).

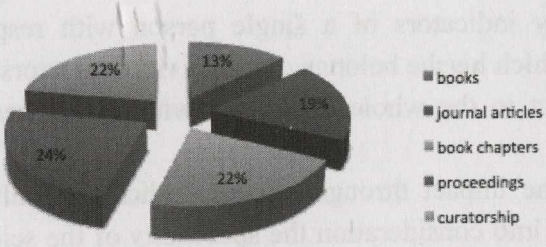

Figure 6: co-authored publications

[1] <http://cercauniversita.cineca.it/>.

If we return to the small number of publications in journals with the IF cited in the preceding paragraph, it isn't a coincidence, in fact, that out of seventeen articles, only two were written by a single author and the rest by two or more authors.

4. Conclusions

In Italy, the Humanistic Scientific Communities have only recently begun to undertake a methodology for the evaluation of research, believing still that peer review is the only evaluation technique available. Yet, bibliometric indicators have become very popular, despite their limitations, because they offer simple solutions to complex problems, and are less expensive and easier to implement than peer review.

As we have tried to demonstrate, the choice of the instruments must depend upon an accurate analysis of the different disciplines, in such a way as to be aware of their individual aspects. Doing so the evaluation creates an incentive for quality research, rather than causing a change in strategy.

From an instrumental point of view, the solution must be found in through a mixed approach, which foresees the integration of different suitable methodologies that keep in consideration different aspects:

- The output of a researcher measured by quantitative indicators (productivity indicators of the lone researcher in a given time period, productivity indicators of a single person with respect to the whole sector to which he/she belongs, productivity indicators of a single person with respect to the whole institution with which he/she is associated, etc.).

- The impact through citation indicators built for this purpose which take into consideration the specificity of the scientific community being analyzed and with respect to the type of publication: for example, the use of IF for journal articles and LCA for monographic works (Torres Salinas, Moed, 2009).

- The quality of the publication determined by peer review.
- The use of electronic publications through the latest generation of web tools, such as the WIF and UF.

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6. ALTMETRICS in the humanities: a case study

Anna Maria Tammaro*

1. Introduction and definition

Scholars have from the very first used the Internet to exchange ideas and research results quickly. We have now entered into a second phase, which could be called "collaborative", and is different from the earlier "connected or networked" which aimed solely at providing information and pre-prints. In this current second phase of Internet use by the scientific community, Internet and the Web are the basic infrastructures for collaboration amongst virtual communities. Not only may the scholar answers e-mails and share pre-prints as before, but he can interact with other experts in all parts of the world and undertake the sharing of his preferences (like), give open access to reports and research data, and collaborate with other experts on bibliographies and digital libraries. Even though still fragmentedly and differently in the various countries, scholars have the instruments to better the productivity and quality of their research through sharing digital resources and collaboration with other scholars. The impact of Internet and the Web on academic research has been studied by some authors who have underlined the reduction in duration of research, as well as other advantages such as the possibility of avoiding duplication, facilitating co-operation, stimulating innovation and making the research results available to all interested parties (Tenopir, King, 2008). A recent study

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of circa 2,000 researchers (Rowlands et al, 2011), has shown that the majority of scholars in the humanities (79,2%) and social sciences (84,0%) have included social media in their research sources. These results indicate that on-line access and interaction through social media for researching is becoming increasingly used in the humanities as well as the sciences.

1.1 Evaluation of digital publications

The proliferation of digital publications on-line has however brought criticism that refers to publications that have a scientific appearance but do not follow a scientific method. Many of the new types of digital publications do not necessarily follow an editorial process: they are made available in Open Access, in the Universities' databases, in their departments' Websites, in Open Access periodicals, in University publiation series available only on-line. The importance of the evaluation of humanities research is in the transparency of the quality of the reasearch for a broader public, just as for the scientific community, which now has the possibility of creating an "open" alternative to the traditional peer review and bibliometric indicators. It can be useful to the scholar himself to understand the impact of his results. A number of initiatives have highlighted the importance of recognizing different and equally effective means of assessing academic outcomes (i.e. ACUMEN, WISER, EICSTES). For instance, the EU research framework 'Horizon 2020' and the EU Digital Humanities Manifesto (2011), are clear examples, the latter stating: "The diversity of digital media and publication genres need to be accepted as genuine means of scientific communication", including "repositories, publication platforms, social media networks and blogging", where "Peer-reviewed texts in print journals can no longer be the only publications to be considered in application and proposal procedures". Terras (2012) adds that academics need to work on their digital presence to aid the dissemination of their research, to both their subject peers and the wider

community. Recently, the National Information Standards Organization (NISO) announced a new two-phase project to study, propose, and develop community-based standards or recommended practices in the field of alternative metrics (NISO, 2013).

1.2 Alternative metrics

A study which has not yet been realized is that of examining whether and how the infrastructure of the Web may be used as a social filter of quality of the digital publications in the humanities.

Webometrics is the study of the quantitative aspects of the creation and use of digital resources, of the platforms and technologies of the Web, based on bibliometrics. The term was coined by Almind and Ingwersen (1997) and the indicator "Web Impact Factor" (WIF) was introduced by Ingwersen (1998). The indicator WIF may be defined as the number of Web pages on a Web site that receive links from other Web-sites, divided by the number of Web pages published on the site that are accessible by search engines. There is also a second definition of Webometrics, the study of Web contents with essentially quantative methods for the research subjects, and using social science techniques that are not specific to any field of study (Thelwall, 2009), that underscores the development of applications of statistical methods in other disciplines.

The term Altmetrics is derived from Article level metrics or Alternative metrics, showing two different approaches to applying Altmetrics: either indicators of impact at the level of the article, or in a broader way, alternative bibliometric indicators. The term was proposed for the first time in 2010 in a Manifesto by Priem, Taraborelli, Groth and Neylon and has its roots in the Twitter hashtag # altmetrics. Altmetrics should be considered a subset of Webometrics, in as much as it concentrates on the impact of academic research measured on certain

platforms and on-line academic social media rather than on the Web in general. (Priem, Groth, Taraborelli, 2012). There are platforms that apply Altmetric metrics, for example: Altmetric.com, Plum Analytic, peerevaluation, Research scorecard and ImpactStory. The platforms that use Altmetrics metrics do not limit themselves to the basic statistics of download and access to the document, but attempt to obtain information about the readers and their use of the contents.

The supporters of Altmetrics do however point out that the indicators show the influence rather than the impact on scientific progress (Lin, Ferrer, 2013). Even for Altmetrics one can find some disadvantages and obstacles: one can not avoid a manipulation in the order of relevance of the results, one may not depend only on automatic systems as it could influence the desired transparency of the evaluation (Priem, Groth, Taraborelli, 2012).

2. Scope and aims of the study

The Project "Altmetrics in Italian humanistic disciplines" will propose alternative models and methods of traditional evaluation of digital publications in the humanities.

To obtain this scope, the Project proposes to:

- make evident the usage and the perceptions of the creators of digital resources for evaluation by Altmetrics;
- understand what may be the barriers and obstacles to evaluation by Altrmetrics

The question in hand is: can Altmetrics become a system for evaluation of digital publications in the humanities?

The case study deals with academics in the humanities in Italy, in discipline groups classified by the Governement as 10 and 11. Even academics in the humanities are creating increasing numbers of digital

publications, accessible in digital libraries, institutional data-bases, or on the Web: besides books and periodicals, there are the blogs, teaching resources, research data, and other digital resources from research and teaching in university departments. Digital publications are hypertextual, dynamic, easily accessible, and may be opened and used again. The traditional Italian evaluation conducted by the Government Agency ANVUR considers only one type of publication – in print or pdf – whose evaluation is controlled by the publisher and offered to other academics in a one-dimensional way that excludes interaction. Consequently we may say that the traditional system of evaluation of quality is not adequate for the types of digital publications that use multi-medial systems and completely different editorial processes. The three traditional measures used for the humanities also have other disadvantages. Peer review is slow, inefficient and favors conventional thinking. Measures like the h-index require to much time to collect data, and the impact factor of the periodicals is applied wrongly as a way of evaluating the work of a single academic. Given the specific characteristics of digital publications on the Web, the procedure of evaluation of digital publications stimulates experimentation of Altmetrics which is open and collective, combining qualitative (peer review) and quantitative (bibliometric indicators) systems, making the seriousness of the digital resources on the Web clear.

3. Method

The Project, to last a year, is based on case study methodology of the community of humanistic scholars in Italy who participate in the Association for Humanistic Informatics and Digital Culture (Associazione Informatica Umanistica e Cultura Digitale (AIUCD).

In the first phase of the Project "Altmetrics for humanistic disciplines" an analysis of the literature and documentation was begun, using a Wiki as the instrument for sharing humanistic digital resources

in Italy. The Project will attempt to create communities of interest for each disciplinary area and to identify the authors who use social media in their research and/or on-line digital resources. To find these resources we will use the different platforms listed under the various categories in Table 1. The authors will be those in the AIUCD list. The expected result of this first phase is that of discovering the types of digital resources used and the academics in each humanistic sector who create and use digital resources.

The on-line platforms covered by the Project "Altmetrics in humanistic disciplines" are grouped under the four categories as below:

3.1. Identification of the authors

Firstly it is necessary to identify univocally each author and/or contributor – for example, blog commentators. ORCID[1] solves the problem of unambiguous identification of academics and contributors. ORCID is used for both traditional bibliometrics and Altmetrics.

3.2. Indicators of access to digital resources

The visibility of the Web, in order to make transparent the impact of digital publications, includes the possibility of their positive identification and measuring their download statistics. Various tools may used to this end. The primary instruments are proprietary and are based on access data. COUNTER is the measure given by the aggregators and counts the number of downloads for a publication. Google Analytics is another source for access metrics. Instruments in the social network are Research Gate and Academia Edu, used to measure impact calculated from access and downloading of publications.

[1] ORCID (Open Researcher and Contributors ID), <www.orcid.org>.

Authors may use these statistics to gather basic information about the impact of their publications and use the analytic data to integrate information on their studies with impact factors of single publications. The administrators of institutional data-bases can use the statistics to promote their own contents (IR) as well as furnish information about the intellectual impact of the university to its administration.

3.3. Sharing of preferences

Social media such as Twitter and Facebook, Linkedin, Reddit, Faculty of 1000, Google+ are in this class of instrument. Twitter is the most used for sharing short messages, almost mini blogs, characterized by the #hashtag that groups tweets on a given argument. LinkedIn is a Web service used mainly to promote professional contacts. In January 2009 LinkedIn had about 30 million users, and in May of 2010, 68 million – more than double. The possibility of sharing bookmarks, with open indexing systems (tags) are the services based on a single platform on which it is possible to find collections of citations and links.

Bibliographical software like Zotero, Mendely, CiteUlike, Connotea are meant for academics and the organization of their publications and bibliographies, more than for librarians. The encyclopedias like Wikipedia, based on collaborative efforts, are part of this group, as they may be used to find relevant citations together with scientific and generic Blogs. Instruments like Delicious and Library thing also share opinions and key words, grouping citations on given arguments.

3.4. Creation of interest groups

Some Web platforms allow sharing of resources and create interest groups, facilitating the creation of thematic or geographical communities. Other instruments of this kind are the sites for organizing

conferences like Lanyrd.com. The digital libraries may considered as part of this group of platforms, as they allow academics to share multidisciplinary resources and in some cases offer help in storing research findings and creating publications.

In a second phase there will be an inquiry based on a questionnaire followed by interviews with experts in each disciplinary sector. The questionnaire will be distributed through the AIUCD network and aimed at understanding academics' perceptions of Altmetrics.

In the third phase, during the second half of 2014, the Project will produce a final report which will be discussed on the basis of data analysis, with possible recommendations for increasing visibility and quality of digital academic publications. The final Report will be discussed by thematic focus groups with experts in order to understand what barriers and obstacles there may be to alternatives to traditional evaluation.

4. Expected results

The results will be analyzed following the measures inspired by the Plum and PLOS studies. PLUM classifies the indicators in 5 distinct types: Use, Capture, Recommendations, Social Media, and citations. Examples of each are:

Use - Download, seen, held by libraries, ILL, document delivery
Capture – Preferreds, bookmarks, saves, readers, groups, bibliographical systems.
Recommendations - blog, news, Wikipedia, comments, reviews
Social Media - Tweets, Facebook, ranking Google
Citations - Web of science, Scopus

The Public Library of Science (PLoS) began evaluations of article levels (ALM) in 2009, prior to the development of Altmetrics and collects the activities used for evaluations into five groups.

Using PLOS taxonomy in evaluating research articles, the platforms that will be applied for the Project are grouped into the following categories:

Access – the means by which the user enters online resources;
Register – the users means to organization and sharing of digital resources;
Discuss – discussion of research described in a source by a short Twitter to a blog;
Recommendation-recommending a source using various platforms;
Cite – formal citation of a source in scholarly journals

Access	Register	Discuss	Recommend	Cite
Counter	Citeulike	Twitter	F100	Scopus
Insitutional databases	Delicious	Facebook	Reviews	Web of science
Dryad, Figshare, Slideshare, Github,	Library thing	Academic blogs	Printed Articles	Wikipedia
Amazon, SBN, Europeana	Mendeley	Google	Figshare, SourceForge	Crossref
Vimeo, Youtube	Zotero	Linkedin	Google analytics	
Google Books	Connotea			

Table 1: Classification of on-line platforms

5. Conclusion

Programs for the evaluation of digital scholarly publications, academics, and all the involved interests, and the cultures of the varying disciplines, are in constant evolution, making the evaluation of research a cycle of continuous learning. Attention to this process guides the Project "Altmetrics for humanistic disciplines" and may allow us to understand not only what functions, but how and why it functions and also to gain knowledge of how the results of evaluation may be influenced for example, by variations in the availability of a source, its access by a broader public, or by available infrastructures. This suggests that any evaluation of digital resources in the humanities should be as comprehensive as possible, going beyond bibliometric measures and taking into consideration the specific disciplinary characteristics of each field by combining traditional methods with Altmetrics.

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7. Library and science indicators: towards a new paradigm to assess the library and information services as an input to the academic processes

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Jarmo Saarti***

Abstract: During the past few decades, the university libraries have changed their paradigm from offering collection-based services towards promoting access and digital use of scientific resources. At the same time, the quality assessment of the university research became integrated into academia. One basic assumption in this paper is that the scholarly communication process is inherently intertwined with research and development (R&D) activities and thus the measurement of their success should also involve an assessment of the contribution of the library. The aim of the paper, therefore, is to describe the up-to-date statistical standards and indicators for both libraries and higher education institutions, emphasizing the need for integration and/or their correlation. In addition, some proposals are made about how to improve co-operation between the library and R&D-processes.

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1. Paradigmatic changes in Higher Education

From the beginning of this millennium the operational environment of Higher Education (HE) has changed dramatically. One stimulus for this was the revolution in the information and communication technologies which changed scientific document dissemination starting from the 1990's. This created a global publication market for the sciences and changed the role of the libraries from a collection based philosophy towards an access and customer based thinking. The subsequent development of the database technologies enabled also the measurement of the impact of scientific documents published and a better appreciation of their use.

Another main trend in higher education has been the global change towards the knowledge society. In this perspective higher education and academic research is seen as the major economic resource in competition between nations for global markets. This has meant that higher education has become a crucial component of global and national policies; now politicians continually reorganize and restructure the HE. At the EU level this has led to the creation of the European higher education area and the so-called Bologna process that represents tools for the governments to implement New Public Management based ideologies throughout the Higher Education institutions.

The result has been a paradigm shift in the evaluation and management of higher education. The work done in the universities, i.e. teaching and academic research is assessed in the same way as manufacturing processes where the aim is to make the production line as efficient as possible and at the same time ensure the highest possible quality of the products. The recent economic crisis in Europe has emphasised the calls for efficiency in the rhetoric emerging from higher education management.

The measurement of the scientific value has also led to the development of new types of evaluation tools. The paper will discuss this change focussing on the effect of this change of measurement has had on academic libraries that have been historically mainly resource oriented.

2. The invisible connection between science and scientific information

Science is a body of knowledge with a memory, i.e. it is based on knowledge previously accumulated, from which new knowledge is generated, accumulated in order to be the seed for future research. It is a cyclical process where new results of research are communicated by scientists to other scientists and – most important of all - to future generations of scientists (Basili, 2002). This communication process – commonly reported through slogans such as "on the shoulders of giants"- is well known in the specialised literature as *scholarly communication*, and the traditional agents in the process are libraries and, from the 1980s, also commercial suppliers of scientific information.

Since there is a tightly coupled interaction between scientists and libraries (i.e. between the scientific system and its knowledge management system) one would logically expect that there should be an integrated methodology for measuring their respective performances. Indeed, the essential object of the assessment should be precisely to quantify the correlation between the two systems, since they exist in a kind of symbiosis as a reciprocal functional dependence.

In fact, the two systems are studied, analysed and measured independently of each other, i.e. as separate systems. This artificial dichotomy between science and scientific information is reflected not only in the studies which can be found in their respective literatures, but also in the development of different and separate categories of

indicators. Both categories will be outlined in this paper. I.e., section 4 provides an account of the indicators used by science, while section 3 describes the set of indicators for the library system.

3. Library statistics: from simply measuring resources to conducting an analysis of the library's impact

Librarians are good at collating statistics and other information but poor at utilizing the results effectively. It is an even a larger challenge to connect the assessment conducted in libraries with measuring the outputs of the mother organization of the library – e.g. what is the library's role in success of the University and how can one prove this contribution?

The traditional library statistics merely quantified the extent of the collections and everyday performance of the library but information about quality or impact of the library performance was either hidden behind the huge number of data or not available at all.

Surprisingly, much can be achieved with the proper analytical tools. According to the statistics of the Finnish scientific libraries, the popularity of the electronic materials is still on the increase in institutions of higher education in Finland (the universities and the universities of applied sciences). This phenomenon is most evident in the use of e-journals: the number of full-text articles downloaded by the users has grown more than 4.5-fold in a period of 10 years. Inspecting the use, cost and numbers of titles of the e-journals as an index time series 2002 - 2011, one can find a much stronger growth of use (downloads) in comparison with the cost and numbers of titles. (Fig. 1.)

Inspection of this time series supports the presumption that choice of e-materials has been cost-effective because the cost development has been moderate in comparison with the increase in use.

The same observation of cost-efficiency has been made previously in a report conducted by the libraries of Finnish universities of applied sciences (Laitinen 2010).

Furthermore, the strong increase of use of e-journals with no apparent increase in the cost and number of titles may well reflect successful choices of materials, but it may relate to the growing needs of the clientele. However, if one wishes to address this latter possibility, one needs to have supplementary information about user enquiries.

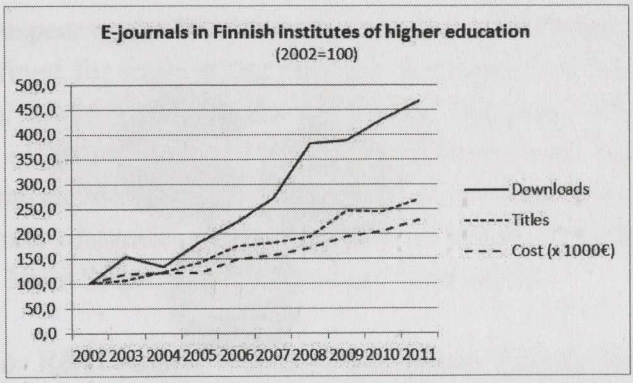

Figure 1: Use of e-journals in Finnish institutes of higher education (universities and universities of applied sciences) appears to be cost effective. Source: Finnish Research Library Statistics Database.

In order to obtain even more benefit from the library statistics, the information collected still needs to be refined and linked with the information collected in other ways, for example with information from the user inquiries, bibliometrics, accounting material, and information obtained from other sources. They can all help in both the evaluation and future planning (Fig. 2).

The collecting of library statistics is guided by international standards, the most widely used of which are the ISO standards developed by the International Organization for Standardization (ISO). So far, the standards for compiling library statistics have been just a "cook-book" defining what data related to the library needs to be

collected (ISO 2789, ISO 11620). The newest standard in the family of the ISO standards for measuring and reporting library activities, however, is the standard for assessing the impact and value of libraries.

The new standard ISO 16439, "Methods and procedures for assessing the impact of libraries", that is still under construction, will define and describe methods for assessing and measuring the impact of libraries and library services. It is intended to complement the existing set of standards for statistics and quality measures in libraries and information services.

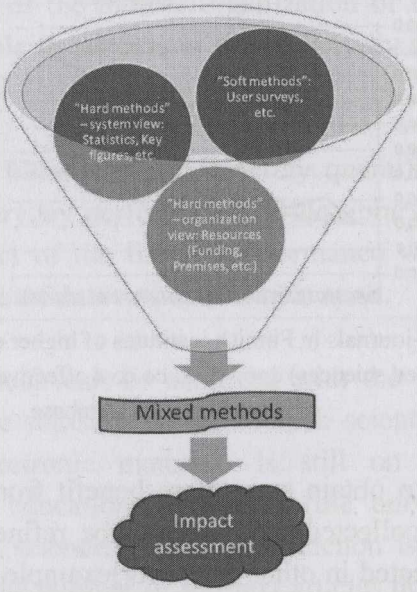

Figure 2: Combining data from different sources produces new tools for the analysis of the impact of library. These "mixed methods" are a step towards achieving a more comprehensive impact assessment of the library.

4. Measuring science via indicators

The problem of measuring scientific activities was formalised in 1963, with the initial release of the so-called Frascati Manual, a manual

published by the OECD as a set of methodological recommendations and guidelines for conducting surveys of Research and Development (R&D) (OECD, 2002). The general aim of the manual was to provide a framework for the production of "reliable and comparable statistics and indicators" to measure basic research, applied research and experimental development in all fields of science (from natural sciences and engineering, to social sciences and humanities). More specifically, the Frascati Manual was devoted to measuring R&D inputs, in terms of R&D expenditures and R&D personnel.

With respect to the R&D output, a number of different strategies have been defined for each of the multiple dimensions of R&D results (Basili, 2003): bibliometric studies for journal literature, development and analysis of patent related databases for inventions, registers of commercial transactions for the international technology transfer; these are only the main categories (For a complete list of OECD indicators see OECD, 2010. Main Science and Technology Indicators).

A major R&D output, crucial in the Lisbon Agenda for Europe, is Innovation conceived as follows: "An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations" (OECD, 2005, p. 46). The Oslo Manual distinguishes innovation into four areas: product, process, marketing and organisational.

It is important to note that, compared with the input R&D resources, *innovation* as a phenomenon, is much more complex and "fuzzy", i.e. its measurement requires also a substantial degree of subjective interpretation, in addition to the collection of objective data. Such complexity is reflected in the existence of several families of indicators, listed in the Oslo Manual as:

> *"statistics on scientific publications (bibliometrics), publications in trade and technical journals ("LBIO" or literature-based indicators of innovation output), skilled human resources, the technology balance of payments, globalisation indicators, and activity in high-technology sectors (investment, employment, external trade). Moreover, some information on innovation and innovative activities can be drawn indirectly from many other sources, such as business surveys or education statistics"* (OECD, 2005, p. 22).

In section 1 we criticized the separation between science and scientific information, i.e. between the scientific system and its knowledge management system. Here, an account is given of how the measurement of R&D activities "as such" has been progressively separated from the measurement of activities supporting the R&D, including the library and its information services (Godin, 2001).

Scientific and technical information services		
Collecting		
Coding		Scientific and technical personnel
Recording		Bibliographic services
Classifying		Patent services
	by	Scientific and technical information, extension and advisory services
Disseminating		Scientific conferences
Translating		
Analysing		
Evaluating		

Table 1: Scientific and technical information services. *"The above activities are to be excluded, except when conducted solely or primarily for the purpose of R&D support (e.g. the preparation of the original report of R&D findings should be included in R&D)"* (OECD, 2002, p. 31)

The Frascati Manual (OECD, 2002, p. 30), in fact, devotes a specific section to "Activities to be excluded from R&D" where it states that:

> *"For survey purposes, R&D must be distinguished from a wide range of related activities with a scientific and technological basis. These other activities are very closely linked to R&D both through flows of information and in terms of operations, institutions and personnel, but as far as possible, they should be excluded when measuring R&D."*

The Frascati Manual identifies four categories of related R&D activities:

- Education and training;
- Other related scientific and technological activities;
- Other industrial activities;
- Administration and other supporting activities.

The "Other related scientific and technological activities" include "Scientific and technical information services" as seen in Table 1.

It is also worth noticing, that the exclusion mentioned in the report applies similarly to "general purpose data collection". This position is clearly at odds with the need for identifying ways to connect the collected data with the result indicators of the mother organization of the library.

5. Impact of Science: a Finnish proposal for its measurement

The Impact Framework and Indicators for Science, Technology and Innovation in Finland defined by Lemola et al. (2008, p. 59) highlighted the most important indicators that describe the impact of science:

- high level and wide-ranging research and development activities
- high level expertise in the fields of science, technology and innovation that are strategically important for the nation
- national and international networking and promoting the mobility of the experts

- the exploitation of new information and knowledge
- ability to meet the challenges in the global knowledge society competition

The result of this work was further refined by Luoma et al. (2011) who examined the focal phenomena and indicators of the effects of research, development and innovation activities together. Though international benchmarking (Luoma et al, 2011, p. 41-100) the useful facets of comparisons were defined and a proposal was made for continuous data collection and follow-up.

6. Concluding remarks - towards the assessments of the library's impact on the academic work

It seems to be the case that the science indicators are still based on very subjective conceptual outputs at the institutional or at the national level and there is a need to analyse these concepts to identify the crossroad points where the paths intersect with the library; i.e. reveal the role of the library in the final output.

Lehvo and Nuutinen (2006) conducted a comparison of research outputs and scientific impacts, visibility and quality of research between Finland and the other OECD countries during a period of 20 years from 1985 to 2005 on the basis of bibliometric science indicators derived from the National Science Indicators (NSI) and the National Citation Report (NCR) databases of Thomson Reuters. One of the findings of the report was on average that publishing cooperation and citation impacts in the major fields of science in Finland and EU was higher than in the other OECD countries. The research outputs were also compared in relation to population size and GDP.

At present, the library statistics as such are not a reliable tool for impact evaluation, and thus there is a need to move beyond the

traditional library performance measurement and to focus on the contribution and value that library services provide to their users. In concrete terms: if the main outputs of the universities are publications and degrees, the library should be able to clearly define how the library impacts and contributes to this process.

Process	Input/actors	Output	Indicators
degree tuition	academic instruction/academics coursebooks, IL tuition/library ICT network/ICT etc.	BAs, MAs, PhDs	amount of degrees quality of degrees cost-efficiency
academic research	academic research/academics publications/libraries, publishers knowledge management/libraries, publishers, scientific community	publications, patent, research data	amount of publications quality of publications optimizing the usage/utilizing cost-effectiveness

Table 2: Example of the process evaluation approach

This becomes even more challenging when one considers the more intangible and abstract effect of higher education on a nation's welfare, education, know-how and networking. It is evident that in this respect statistics will not suffice: one needs actual academic research into clarifying these effects. In addition, one must change the point of view from "the collecting of statistics" towards a process oriented as depicted in Table 2, where the analysis is being conducted at the process level including all the actors involved in creating the results and ensuring their quality.

Today, when struggling for to obtain the resources, the emphasis is placed on the library's ability to demonstrate its actual input to the basic scientific processes. Nonetheless the library community has a duty

to start to redefine its statistical collection and develop these so that they will permit analysis of the library's role scientific knowledge management and the innovation processes.

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8. Le riviste scientifiche nell'ambito della ricerca nelle scienze umane

Luca Lanzillo*

SOMMARIO: Abstract; 1. La comunicazione scientifica e la sua evoluzione nel tempo; 2. I *core journal* nella comunicazione scientifica: ruolo e criteri di selezione; 3. Scienze umane e posizionamento della rivista; 4. Le riviste italiane di scienze umane in Web of Science e in Scopus; 5. Conclusioni; 6. Appendice: Le riviste italiane di scienze umane presenti nell'*Arts & Humanities Citation Index* 2012 e nello SJR *Arts & Humanities* 2012; Riferimenti bibliografici.

Abstract: La comunicazione scientifica riconosce la rivista come un agile ed efficace strumento di condivisione e diffusione della conoscenza prodotta attraverso la ricerca. Nelle scienze dure la rivista ha assunto col tempo un dominio incontrastato, acquisendo le funzioni fondamentali di registrazione, certificazione, diffusione e conservazione. Le riviste scientifiche più autorevoli di ciascuna disciplina sono indicizzate dalle due grandi banche dati internazionali Web of Science e Scopus, i loro articoli hanno così una visibilità mondiale. Al contrario, nelle scienze umane l'articolo su rivista è tuttora considerato una forma minore di pubblicazione. Oltre a questo, le caratteristiche peculiari delle scienze umane si riflettono sulla loro produzione editoriale, rendendo più difficile una loro indicizzazione all'interno delle due grandi banche dati. Questo contributo si propone di verificare e quantificare la presenza delle riviste italiane di area umanistica all'interno di Web of Science e di Scopus, aggiornando un precedente lavoro (Capaccioni, Spina, 2012) e focalizzando l'analisi alle sole scienze umane.

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1. La comunicazione scientifica e la sua evoluzione nel tempo

L'uomo, in quanto *animale sociale*, è naturalmente portato a vivere all'interno di una comunità e a confrontarsi continuamente con essa: questo vale ancor di più per chi ha fatto della ricerca della conoscenza la propria missione. Da sempre, infatti, gli uomini di scienza (*di conoscenza*) hanno sentito il bisogno di comunicare con i propri *pari*, per trasmettere il proprio sapere, le proprie idee, le proprie scoperte: se si ha qualcosa d'importante da dire, si ha anche la necessità che qualcuno l'ascolti e la comprenda.

La comunicazione scientifica (*scholarly communication*), ossia la trasmissione del sapere "tra i membri della comunità scientifica, nei rispettivi ambiti specialistico-disciplinari e secondo le regole ed i codici propri di ciascun ambito" (Basili, 2010, p. 47), ha trovato la sua prima vera espressione nello "scambio epistolare tra scienziati" (Basili, 2003, p. 192): grazie alla scrittura, neanche le più grandi distanze hanno potuto impedire agli studiosi di tenersi in stretto contatto tra loro.

L'introduzione della stampa a caratteri mobili ha offerto agli studiosi molte più occasioni per far conoscere i propri lavori: è in questo momento che la *Repubblica della scienza* ha sentito il bisogno di introdurre un qualche meccanismo di selezione, dato che chiunque aveva, potenzialmente, la possibilità di diffondere le proprie opere (scientifiche e non).

Si assiste così, dalla seconda metà del XVII secolo, alla nascita di gruppi di intellettuali il cui obiettivo è quello di individuare la produzione editoriale di qualità per farla conoscere al pubblico degli studiosi: lo strumento attraverso il quale si concretizza questo obiettivo è quello del giornale letterario, un mezzo di comunicazione agile caratterizzato dallo stile della recensione. Capostipiti di questa tradizione secolare sono il francese *Journal des Sçavans* e le *Philosophical Transaction* britanniche[12] (entrambi fondati nel 1665), modelli per il

[12] Per una storia del giornalismo si veda Farinelli, Paccagnini, Santambrogio, Villa (2004).

Giornale de' Letterati di Roma fondato nel 1668[13].

È però dal secondo dopoguerra che avviene una vera e propria crescita esponenziale del volume di questo tipo di comunicazione, grazie alla nascita e allo sviluppo di nuovi media che moltiplicano i canali (e le forme) attraverso cui la conoscenza può viaggiare: la ricerca scavalca definitivamente i confini nazionali e disciplinari, diventando internazionale e multidisciplinare. Un rilievo sempre maggiore è assunto dalla rivista scientifica, divenuta lo strumento cardine della *scholarly communication*, alla quale vengono affidate quattro funzioni nodali: registrare la priorità di un contributo scientifico, certificarne la qualità, diffonderne il testo, conservarlo nel tempo (Roosendaal, Geurts, 1997).

2. I *core journal* nella comunicazione scientifica: ruolo e criteri di selezione

Il mondo della ricerca ha affidato principalmente alla rivista scientifica (al *journal*) il compito di trasmettere l'informazione all'interno delle comunità degli studiosi. La rivista, rispetto ad altre tipologie di pubblicazione, garantisce una certa rapidità nella diffusione dell'informazione, affiancata da una continuità di aggiornamento dovuta proprio alla sua periodicità. Dai primi giornali del secolo XVII, si è assistito ad una continua evoluzione che ha permesso alla rivista di imporsi come strumento di certificazione della qualità della ricerca in esso presentata. Col tempo, in ciascuna disciplina sono state individuate una serie di riviste fondamentali alle quali viene riconosciuto un elevato prestigio, conosciute come i *core journals* di uno specifico ambito disciplinare.

Il prestigio acquisito è dovuto soprattutto a due fattori fortemente correlati tra loro:

[13] Nella prefazione al primo numero viene infatti sottolineata "la funzione dei giornali proiettata a dar notizia dei libri veramente utili senza essere tratti in inganno da pubblicazioni effimere offerte al pubblico tramite altisonanti frontespizi" (Monaco, 2001, p. 98).

- l'applicazione di una serie di rigorosi standard editoriali che tali riviste hanno saputo garantire nel tempo;
- la presenza in alcune banche dati bibliografiche di carattere internazionale[14] e di stampo commerciale.

Questi due fattori sono strettamente dipendenti l'uno dall'altro: la mancanza del primo, infatti, preclude l'inserimento della rivista all'interno di tali banche dati. Questo lavoro di valutazione e indicizzazione delle riviste ha assunto una rilevanza sempre maggiore, contribuendo ad elevare sensibilmente il prestigio di tali strumenti: col tempo si è assistito ad una crescita della loro autorevolezza, divenuta oggi condizione necessaria e sufficiente a certificare la qualità di una rivista. È lecito perciò pensare che siano oramai gli stessi editori di queste banche dati a suggerire i parametri da seguire affinché una pubblicazione abbia un carattere di scientificità e possa così essere indicizzata nelle loro liste.

Quali sono questi criteri? I due editori dichiarano, più o meno apertamente, le condizioni secondo le quali una rivista scientifica meriti di essere inserita nelle proprie liste[15]:

- presenza di un comitato scientifico-editoriale di alto livello e quanto più possibile internazionale;
- applicazione di un processo di valutazione paritaria (*peer-review*);
- adozione di convenzioni editoriali condivise internazionalmente;
- regolarità nella pubblicazione;
- uso della lingua inglese[16].

[14] Si fa riferimento a Web of Science (WoS) di Thomson Reuters (<http://thomsonreuters.com/web-of-science/>) e alla sua diretta concorrente *Scopus* di Elsevier (<http://www.elsevier.com/online-tools/scopus>).

[15] I criteri di inclusione in WoS sono indicati in <http://wokinfo.com/essays/journal-selection-process/>, mentre per quelli di Scopus si veda <http://files.sciverse.com/documents/pdf/ContentCoverageGuide-jan-2013.pdf>.

[16] Scopus ammette anche riviste pubblicate in lingue differenti, ma almeno l'*abstract* di ciascun articolo deve essere in inglese.

Questi criteri sono comunemente riconosciuti dal mondo della ricerca come i principali indicatori di scientificità di una rivista, i requisiti minimi che essa deve rispettare per poter essere considerata attendibile. In realtà non tutti i settori disciplinari condividono questo punto di vista e la questione è, naturalmente, molto più complessa di quella che è stata descritta. In particolare, questi parametri sono generalmente condivisi in quei settori conosciuti come "scienze dure"[17], mentre nei settori afferenti alle "scienze umane"[18] essi possono essere facilmente soggetti a critiche, dato il ruolo svolto dalla rivista.

3. Scienze umane e posizionamento della rivista

Per avere una prima idea del ruolo della rivista come strumento della *scholarly communication* umanistica, si potrebbe partire dai dati pubblicati dall'ANVUR[19] relativi ai *prodotti* della ricerca ricevuti in occasione della Valutazione della Qualità della Ricerca (VQR) 2004-2010[20] (Benedetto, Ancaiani, 2012): relativamente ai settori umanistici[21] è facile notare come sia prevalente la pubblicazione sotto forma di libro o capitolo di libro (56,10%) a scapito della rivista (32,47%), mentre nei settori afferenti alle scienze dure[22] la rivista predomina incontrastata (88,33%) sulla forma libro (5,52%). In effetti, nelle scienze umane

[17] Le *hard sciences* comprendono tutte le discipline basate su dati sperimentali, quantificabili e ripetibili, ossia quelle riconducibili al settore scientifico-tecnico-medico.

[18] "The humanities can be considered a complex of disciplines concerned with modes of expression and interpretation of human thought and emotion" (Hillman Chartrand, 1980).

[19] Agenzia nazionale di valutazione del sistema universitario e della ricerca, <http://www.anvur.org/index.php?lang=it>.

[20] <http://www.anvur.org/index.php?option=com_content&view=article&id=28&Itemid=119&lang=it>.

[21] Che in Italia sono raggruppati nell'Area CUN 10 (Scienze dell'antichità, filologico-letterarie e storico-artistiche) e, in parte, nell'Area CUN 11 (Scienze storiche, filosofiche, psicologiche e pedagogiche).

[22] Aree CUN 1-9.

prevale nettamente l'uso di trasmettere i risultati delle proprie ricerche tramite la monografia o il capitolo di libro, molto più congeniali alle pratiche di ricerca nelle *Humanities* rispetto alla rivista[23], la quale ricopre un peso minore perfino in sede concorsuale (Di Donato, 2007). Specialmente nelle *Humanities*, si riscontra una certa difficoltà nel concentrare una serie di concetti nelle poche pagine a disposizione in un articolo: "some researchers in the humanities point to how the capacity to develop a line of thought and argument is hampered by the shoehorning of work into small articles" (Research Information Network [RIN], 2009, p. 18)

Non si deve pensare che la rivista scientifica sia ignorata dagli umanisti, Diana Hicks (2004) la inserisce tra le *quattro letterature* principali delle scienze umane, poco al di sotto del libro ed è Giuseppe Vitiello (2005) a centrare il cuore del problema: "all'origine di una disciplina, di una tendenza letteraria e artistica, di un movimento politico di opinione vi è spesso una rivista. "La critica sociale", "La rivoluzione liberale", "Il Politecnico", "La Voce" [...] senza di esse non vi sarebbero stati antifascismo, avanguardie artistiche e neanche il rinnovamento in profondità della cultura del nostro paese con la sua apertura alle grandi correnti del pensiero europeo" (p. 95). La rivista è perciò vista come un battistrada, uno strumento utile a sondare il terreno, un luogo in cui sperimentare: è lo spazio più adatto per lanciare un'idea e capire quale possa essere la risposta della propria comunità. È un mezzo di comunicazione a stampa rapido ed immediato, utilizzato per diffondere notizie nel breve periodo.

Può spesso ricopre un ruolo comunicativo in seno ad un'istituzione, un'associazione o un'azienda: sono molti, infatti, gli organismi professionali e industriali che affidano a un bollettino o a un notiziario il compito di trasmettere il *corpus* di nozioni e di temi che essi vorrebbero vedere ai primi posti dell'ordine del giorno nei dibattiti degli esperti e degli opinionisti. C'è poi la questione delle riviste professionali,

[23] Diversi sono gli studi, a livello nazionale, che hanno mostrato questa preferenza nei confronti della forma libro rispetto a quella della rivista (Bourke, Butler, Biglia, 1996; Pestaña, Gómez, Fernández, Zulueta, Méndez, 1995; Winterhager, 1994).

considerate di minor valore e prestigio rispetto a quelle scientifiche in senso stretto: è una visione legata ancora ad una distinzione tra ricerca e professione, dove la prima è sinonimo di scientificità e la seconda è pura *ars mechanica* (separazione che ancora permane all'interno dell'accademia italiana).

Come detto in precedenza, nel contesto internazionale una rivista è riconosciuta di qualità nel caso in cui adotti una serie di standard editoriali e dichiari di applicare un rigoroso sistema di selezione dei manoscritti: molto spesso le riviste di area umanistica non usano la *peer-review* in senso stretto, ma commissionano gli articoli direttamente agli autori[24]; oppure, nel caso in cui adottino un processo di selezione *ex-ante*, i criteri di selezione sono abbastanza vaghi. La tipica frammentazione delle discipline umanistiche, rappresentata dal grande numero di correnti di pensiero presenti in ciascun settore, viene evidenziata anche dagli stili editoriali delle pubblicazioni accademiche: diversamente da ciò che accade nei settori scientifico-tecnici, nelle *Humanities* non esistono regole condivise di pubblicazione e di strutturazione dei testi, né tantomeno esistono stili citazionali condivisi. Mentre nelle scienze dure esistono alcuni stili editoriali particolarmente famosi e utilizzati[25], nelle scienze umane ciascuno studioso utilizza criteri e stili che gli son stati trasmessi dal proprio mentore: il risultato è quello di poter riscontrare norme editoriali differenti anche all'interno di una stessa disciplina. Allo stesso modo, come è tipico delle *Humanities*, la lingua utilizzata è solitamente quella del paese di appartenenza, così come gli argomenti trattati sono, in linea di massima, di carattere nazionale o locale. La mancata applicazione di una rigida valutazione paritaria, l'estrema eterogeneità delle norme redazionali, la mancanza di una lingua comune, l'attenzione rivolta a tematiche di carattere essenzialmente locale, sono tutti fattori che rendono difficoltosa

[24] In questo contesto acquista perciò maggior rilievo il rapporto personale tra editore e autore (Cassella, 2009).

[25] Gli stili citazionali sono in genere suddivisi in due grandi gruppi, quello degli stili parentetici (di cui sono un esempio gli stili APA, MLA, Harvard) e quello delle note numerate (come ad esempio gli stili Nature, IEEE, Vancouver).

l'inserimento delle pubblicazioni di carattere umanistico all'interno delle grandi banche dati di cui si è parlato. Da un lato, infatti, esse necessitano di forme definite e standardizzate, anche da un punto di vista linguistico, che facilitino l'indicizzazione e l'inserimento dei dati in modo automatico; dall'altro lato, le tematiche affrontate dagli umanisti possono essere di scarsa rilevanza per un pubblico di respiro internazionale.

In ultima analisi, tra gli umanisti non è radicato il concetto di *core journals* come avviene nelle *hard sciences*, poiché essi non ritengono che pubblicare articoli su riviste di modesta diffusione sia particolarmente limitante per la loro attività di ricerca[26]: prendendo come esempio i docenti e ricercatori dell'Università di Roma "La Sapienza"[27], tra il 2004 e il 2010 hanno pubblicato su ben 1.232 riviste differenti[28], dai livelli di scientificità e di diffusione molto diversi tra loro.

4. Le riviste italiane di scienze umane in Web of Science e in Scopus

Capaccioni e Spina (2012) hanno recentemente pubblicato uno studio sulla presenza delle riviste italiane di area umanistica e sociale, escludendo perciò le altre tipologie di pubblicazioni, all'interno delle due grandi banche dati internazionali. I criteri di inclusione nel campione da loro studiato sono stati quello di essere pubblicate in Italia, ma non necessariamente in lingua italiana, e quello di appartenere alle aree disciplinari suddette[29]. I dati analizzati si riferiscono al 2010 e sono stati

[26] Un esempio italiano di grande significato sono i *Bollettini* pubblicati dalle Deputazioni di storia patria, istituti a carattere locale sostenuti dallo stato, fondati in seguito all'unificazione per promuovere studi storici relativi ai territori degli stati preunitari: sono riviste di lunga tradizione molto apprezzate dagli studiosi soprattutto perché permettono di pubblicare le edizioni di documenti conservati negli archivi storici locali, possibilità spesso negata da riviste di copertura più ampia.

[27] Afferenti alle aree CUN 10-11, esclusi i settori di Psicologia e Scienze motorie.

[28] Dati ricavati dal database U-Gov Ricerca dell'Università di Roma "La Sapienza".

[29] Facendo riferimento all'ISSN delle riviste si è potuto procedere ad un'identificazione univoca.

tratti, per quanto riguarda Web of Sciences, dal *Journal Citation Reports* (JCR) *Social Sciences Edition* e dall'*Arts & Humanities Citation Index* (A&HCI)[30]; per quanto riguarda Scopus, i due studiosi hanno utilizzato lo *SCImago Journal & Country Rank* (SJR)[31] relativamente alle *subject areas Arts and Humanities* e *Social Sciences*. Per integrare ulteriormente i dati, sono state prese in considerazione anche le informazioni presenti nei siti web ufficiali delle due basi di dati e quelle tratte da alcuni contributi della letteratura sull'argomento.

Quello che si cercherà di fare in questa sede, a distanza di quasi due anni, è un aggiornamento di quel lavoro, seguendo quella stessa metodologia, focalizzando però l'attenzione sulla sola area delle *Humanities* italiane, escludendo l'area delle scienze sociali.

Sono state perciò prese in esame le riviste italiane presenti nell'*Arts & Humanities Citation Index*[32] di WoS e quelle indicizzate sotto la *subject area Arts and Humanities* di SJR, relative all'anno 2012[33]. Non si è potuta fare una comparazione dei valori bibliometrici tra le riviste poiché, come si è detto, il JCR non indicizza l'A&HCI. I dati raccolti sono stati organizzati in una serie di tabelle riguardanti le riviste (tabelle 1, 2 e 3), il posizionamento dell'Italia secondo le statistiche elaborabili tramite SJR (tabelle 4 e 5), gli editori coinvolti (tabelle 6, 7 e 8).

Rispetto ai dati recuperati da Capaccioni e Spina, nei due anni intercorsi ci son stati dei cambiamenti nella consistenza delle riviste indicizzate:

- nell'A&HCI sono state aggiunte 4 riviste in due anni, per un totale di 67[34] riviste (Tabella 1) contro le 63 del 2010, senza che

[30] Che non viene indicizzata nel JCR per il calcolo dell'Impact Factor.

[31] Diversamente dal JCR, lo SJR calcola una serie di indicatori bibliometrici anche per le riviste di area umanistica <http://www.scimagojr.com/>.

[32] L'interrogazione dell'indice è stata effettuata nell'ottobre 2013 tramite l'accesso online a disposizione del CNR Ceris Istituto di ricerca per l'impresa e lo sviluppo.

[33] L'ultima interrogazione dello *SCImago Journal & Country Rank* è stata realizzata nell'ottobre 2013.

[34] Come era stato notato nello studio precedente, anche qui la rivista *History and Philosophy of the Life sciences* della Stazione zoologica "Anton Dohrn" di Napoli non

ne sia stata eliminata alcuna;
- nello SJR *Arts & Humanities* c'è stato invece un notevole aumento della presenza di riviste italiane, con ben 36 nuove entrate, per un totale di 83[35] riviste (Tabella 2)[36] contro le 55 del 2010, ma va segnalata l'uscita di 8 riviste dalla lista del 2010.

In totale sono 104 le riviste italiane di area umanistica presenti nelle due grandi banche dati, con 46 riviste presenti in entrambe (Tabella 3), rispetto alle 35 del 2010, con un aumento di poco più del 30%. Anche nel 2012, il nostro paese si piazza all'ottava posizione sia nella classifica delle pubblicazioni di documenti[37] di area umanistica (su 147 paesi), sia in quella relativa alle pubblicazioni in tutti gli ambiti disciplinari (su 225 paesi), come si può vedere dalle tabelle 4 e 5[38].

Oltre a questi dati di confronto con il precedente studio, si è ritenuto utile fornire qualche dato relativo agli editori di queste riviste. Per quanto riguarda le pubblicazioni presenti nell'A&HCI, sono 44 gli editori rappresentati (Tabella 6), di cui 9 hanno all'attivo più di una rivista: la capofila è la casa editrice Olschki, con ben 10 riviste[39]; a seguire ci sono Fabrizio Serra (7 riviste), Sansoni e Il Mulino (3), Carocci, Loescher, Patron, Rosenberg & Sellier, Vita pensiero (2); le case editrici con una sola rivista all'attivo sono 35.

Dal versante di Scopus (Tabella 7), il numero di editori è maggiore (51) e il primo posto è occupato dall'editore Fabrizio Serra anch'esso con 10 riviste, seguito da Il Mulino (8), Firenze University press (4), Sansoni e Olschki (3), Carocci, Edizioni Università Macerata,

è stata inserita nella lista delle riviste italiane (ed è invece presente nelle liste dello SJR *Arts & Humanities*).

[35] Pari al 3,97% del totale (2087 riviste).

[36] Potendo disporre, grazie allo SJR, di alcuni indicatori bibliometrici, si è ritenuto utile riportarli per permettere un'ulteriore comparazione con i dati del 2010: sono stati presi in considerazione le total cites, lo SJR, l'h-index.

[37] Non solo articoli su rivista, ma anche monografie, *proceedings* ecc.

[38] Dati tratti dallo SJR.

[39] Di cui una è edita in collaborazione con una casa editrice straniera, la Brill academic publishers.

Franco Angeli, Istituto Poligrafico e Zecca dello Stato, Le Lettere, Loescher, Patron, Rosenberg & Sellier, Vita pensiero (2); le case editrici con una sola rivista all'attivo sono 37.

Nel momento in cui si vada poi a verificare il numero di editori rappresentati in entrambe le banche dati, questo scende a 32 (Tabella 8).

I dati appena illustrati sono contenuti nelle tabelle[40] presenti in appendice, per poter fare così un confronto più agevole con quelli del 2010.

5. Conclusioni

Come si è potuto vedere dai dati qui presentati, lo spazio dedicato alle riviste italiane riconducibili alle *Humanities* cambia a seconda della banca dati a cui si faccia riferimento.

Questa situazione è dovuta ai differenti criteri di inclusioni seguiti dai due editori, Thomson Reuters e Elsevier: il primo attua, infatti, una selezione molto più rigida rispetto al concorrente, come hanno sintetizzato efficacemente Capaccioni e Spina nel loro articolo. In entrambi i casi, c'è stata una crescita della presenza italiana nel settore delle scienze umane, con un aumento di oltre il 60% fatto registrare da Scopus nel giro di due anni. Questo dato potrebbe far pensare che ci sia anche una maggior attenzione da parte degli editori ad aderire a quelle pratiche e a quegli standard che, in campo internazionale, sono riconosciuti come sinonimo di qualità editoriale. Questo adeguamento potrebbe essere facilitato anche dal fatto che, in entrambe le banche dati, si nota la presenza di alcuni editori "forti", che concentrano nelle proprie mani una buona fetta di queste riviste: in tal senso, il processo di adesione potrebbe andare avanti con una certa omogeneità e, al contempo, subire una decisa accelerazione.

Per quanto la forma del libro sia ancora quella più diffusa e congeniale nell'ambito della ricerca umanistica, la rivista può ritagliarsi sempre più uno spazio importante al suo fianco, contribuendo ad una

[40] Le tabelle 1,2, 3 e 8 organizzano i dati secondo l'ordine alfabetico.

diffusione più rapida della conoscenza prodotta nei nostri settori grazie alle caratteristiche che la contraddistinguono. A tal proposito, la stessa ANVUR ha inserito, tra gli obiettivi primari per il prossimo futuro, il sostegno alla candidatura di un consistente gruppo di riviste italiane per la loro indicizzazione in Web of Science e in Scopus (Bonaccorsi, 2012): questa azione di promozione potrà facilitare l'adeguamento delle nostre riviste ai requisiti editoriali accolti in sede internazionale, favorendo al contempo un aumento della visibilità della ricerca umanistica italiana.

6. Appendice: Le riviste italiane di scienze umane presenti nell'*Arts & Humanities Citation Index* 2012 e nello *SJR Arts & Humanities* 2012

Titolo	ISSN
Acta philosophica	1121-2179
Aevum-rassegna di scienze storiche linguistiche e filologiche	0001-9593
Archivio storico italiano	0391-7770
Atene e Roma-nuova serie seconda	0004-6493
Athenaeum-studi periodici di letteratura e storia dell'antichità	0004-6574
Aut aut	0005-0601
Belfagor	0005-8351
Biblica	0006-0887
Bollettino di storia delle scienze matematiche	0392-4432
Bruniana & campanelliana	1125-3819
Cineforum	0009-7039
Contemporanea	1127-3070
Critica d'arte	0011-1511
Critica letteraria	0390-0142
Disegnare idee immagini-ideas images	1123-9247
Eikasmos-quaderni bolognesi di filologia classica	1121-8819
Epistemologia	0392-9760
Galilaeana-journal of galilean studies	1971-6052
Giornale critico della filosofia italiana	0017-0089
Giornale storico della letteratura italiana	0017-0496
Historica	0018-2427
History of economic ideas	1122-8792
History of education & childrens literature	1971-1093
Italianistica-rivista di letteratura italiana	0391-3368
Lettere italiane	0024-1334
Lingua e stile	0024-385x
Lingua nostra	0024-3868
Lotus international	1124-9064
Maia-rivista di letterature classiche	0025-0538

Titolo	ISSN
Materiali e discussioni per l'analisi dei testi classici	0392-6338
Medioevo-rivista di storia della filosofia medievale	0391-2566
Mediterranea-ricerche storiche	1828-230x
Mitteilungen des kunsthistorischen institutes in Florenz	0342-1201
Nexus network journal	1590-5896
Nuncius-journal of the history of science	0394-7394
Nuova rivista musicale italiana	0029-6228
Nuova rivista storica	0029-6236
Ponte	0032-423x
Prospettiva-rivista di storia dell'arte antica e moderna	0394-0802
Quaderni storici	0301-6307
Quaderni urbinati di cultura classica	0033-4987
Rassegna della letteratura italiana	0033-9423
Rassegna storica del Risorgimento	0033-9873
Reti medievali rivista	1593-2214
Ricerche di storia dell'arte	0392-7202
Rinascimento	0080-3073
Risorgimento	0035-5607
Rivista di estetica	0035-6212
Rivista di filologia e di istruzione classica	0035-6220
Rivista di filosofia neo-scolastica	0035-6247
Rivista di letterature moderne e comparate	0391-2108
Rivista di storia della filosofia	0393-2516
Rivista di storia e letteratura religiosa	0035-6573
Rivista italiana di musicologia	0035-6867
Rivista storica dell'antichità	0300-340x
Rivista storica italiana	0035-7073
Storia dell'arte	0392-4513
Studi e problemi di critica testuale	0049-2361
Studi francesi	0039-2944
Studi medievali	0391-8467
Studi musicali	0391-7789
Studi piemontesi	0392-7261

Titolo	ISSN
Studi romani	0039-2995
Studi secenteschi	0081-6248
Studi storici	0039-3037
Teoria-rivista di filosofia	1122-1259
Verifiche	0391-4186

Tabella 1: Riviste italiane presenti nell'*Arts & Humanities Citation Index* 2012

Titolo	ISSN	Total Cites	SJR	H-index
Acta philosophica	1825-6562	0	0,102	0
Adamantius	1126-6244	2	0,112	1
Aevum-rassegna di scienze storiche linguistiche e filologiche	1827-787X	6	0,123	4
Annali di architettura	1124-7169	4	0,101	2
Annali di storia dell'esegesi	1120-4001	5	0,123	2
Archaeologia maritima mediterranea	1825-3881	1	0,167	1
Archeologia classica	0391-8165	3	0,101	3
Archeologia medievale	0390-0592	1	0,1	4
Archivio di filosofia	1970-0792	0	0,101	0
Archivio storico italiano	0391-7770	5	0,101	2
Arte cristiana	0004-3400	8	0,11	3
Arte medievale	0393-7267	0	0,102	1
Atene e Roma	0004-6493	1	0,101	1
Athenaeum	0004-6574	10	0,11	2
Aut aut	0005-0601	3	0,107	1
Biblica	0006-0887	4	0,115	5
Bollettino d'arte	0394-4611	2	0,1	2
Bollettino di archeologia	1120-2742	1	0,101	1
Bollettino di storia delle scienze matematiche	1724-1650	2	0,102	1
Bruniana e campanelliana	1724-0441	4	0,101	1
Cineforum	0009-7039	1	0,1	1
Contemporanea	1127-3070	8	0,1	2
Critica d'arte	0011-1511	0	0,1	1
Critica del testo	1127-1140	0	0	0
Critica letteraria	2035-2638	1	0,1	1
Cromohs	1123-7023	0	0,109	0
Cultura neolatina	0391-5654	3	0,101	2
Eikasmos-quaderni bolognesi di filologia classica	1121-8819	0	0,101	1
Elenchos	2037-7177	0	0,102	0

Titolo	ISSN	Total Cites	SJR	H-index
Epistemologia	1825-652X	2	0,129	3
Filosofia politica	0394-7297	0	0	0
Giornale critico della filosofia italiana	0017-0089	2	0,1	2
Giornale di storia costituzionale	1593-0793	0	0	0
Giornale storico della letteratura italiana	0017-0496	0	0,1	0
Gregorianum	0017-4114	7	0,154	3
History and philosophy of the life sciences	1742-6316	30	0,253	11
History of economic ideas	1122-8792	0	0,102	1
History of education and children's literature	1971-1131	13	0,123	2
Incidenza dell'antico	1971-2995	0	0	0
Intersezioni	0393-2451	0	0	0
InTRAlinea	1827-000X	0	0,103	0
Iride	1122-7893	0	0,101	0
Iris	2036-6329	1	0,1	1
Italianistica - rivista di letteratura italiana	1724-1677	17	0,1	2
Journal of european economic history	0391-5115	0	0	2
Lettere italiane	0024-1334	3	0,124	2
Lingua e stile	0024-385X	4	0,111	3
Lingua nostra	0024-3868	0	0,101	2
Lotus international	1124-9064	2	0,1	1
Maia - rivista di letterature classiche	0025-0538	4	0,1	2
Materiali e discussioni per l'analisi dei testi classici	1724-1693	6	0,108	1
Melanges de l'ecole francaise de Rome: antiquite	1724-2134	1	0,1	3
Nuova rivista musicale italiana	0029-6228	0	0,1	1
Nuova rivista storica	0029-6236	1	0,1	2

Titolo	ISSN	Total Cites	SJR	H-index
Orientalia christiana periodica	0030-5375	2	0,1	2
Parola del passato	0031-2355	0	0,1	1
Ponte	0032-423X	0	0,1	1
Prometheus (Italy)	2281-1044	0	0,101	0
Prospettiva-rivista di storia dell'arte antica e moderna	0394-0802	2	0,1	2
Quaderni urbinati di cultura classica	1724-1901	2	0,11	1
Rassegna della letteratura italiana	0033-9423	0	0,101	1
Rassegna storica del Risorgimento	0033-9873	1	0,1	1
Reti medievali rivista	1593-2214	0	0,101	0
Ricerche di storia dell'arte	0392-7202	0	0,1	0
Ricerche di storia politica	1120-9526	0	0	0
Rivista di cultura classica e medioevale	1724-062X	2	0,102	1
Rivista di filologia classica	1873-2000	7	0,1	2
Rivista di filosofia neo-scolastica	0035-6247	0	0,1	2
Rivista di letterature moderne e comparate	0391-2108	0	0,1	1
Rivista di linguistica	1120-2726	0	0,102	0
Rivista di storia della filosofia	1972-5558	5	0,1	3
Rivista di storia e letteratura religiosa	2035-7583	1	0,101	2
Rivista storica dell'antichità	0300-340X	3	0,113	1
Rivista storica italiana	0035-7073	1	0,1	2
Sistemi intelligenti	1120-9550	8	0,155	1
Strumenti critici	0039-2618	1	0,1	2
Studi danteschi	0391-7835	0	0,101	3
Studi e problemi di critica testuale	1826-722X	3	0,11	1
Studi francesi	0039-2944	1	0,1	1
Studi medievali	0391-8467	3	0,1	3

Titolo	ISSN	Total Cites	SJR	H-index
Studi storici	0039-3037	0	0,1	3
Teoria - rivista di filosofia	1122-1259	1	0,105	1
Territorio	2239-6330	0	0	0

Tabella 2: Riviste italiane presenti nello SJR *Arts & Humanities* 2012 con indicatori bibliometrici

Titolo	ISSN
Acta philosophica	1825-6562
Aevum-rassegna di scienze storiche linguistiche e filologiche	1827-787X
Archivio storico italiano	0391-7770
Atene e Roma	0004-6493
Athenaeum	0004-6574
Aut aut	0005-0601
Biblica	0006-0887
Bollettino di storia delle scienze matematiche	1724-1650
Bruniana e campanelliana	1724-0441
Cineforum	0009-7039
Contemporanea	1127-3070
Critica d'arte	0011-1511
Critica letteraria	2035-2638
Eikasmos-quaderni bolognesi di filologia classica	1121-8819
Epistemologia	1825-652X
Giornale critico della filosofia italiana	0017-0089
Giornale storico della letteratura italiana	0017-0496
History of economic ideas	1122-8792
History of education and children's literature	1971-1131
Italianistica - rivista di letteratura italiana	1724-1677
Lettere italiane	0024-1334
Lingua e stile	0024-385X
Lingua nostra	0024-3868
Lotus international	1124-9064
Maia - rivista di letterature classiche	0025-0538
Materiali e discussioni per l'analisi dei testi classici	1724-1693
Nuova rivista musicale italiana	0029-6228
Nuova rivista storica	0029-6236
Ponte	0032-423X
Prospettiva-rivista di storia dell'arte antica e moderna	0394-0802
Quaderni urbinati di cultura classica	1724-1901
Rassegna della letteratura italiana	0033-9423
Rassegna storica del Risorgimento	0033-9873

Titolo	ISSN
Reti medievali rivista	1593-2214
Ricerche di storia dell'arte	0392-7202
Rivista di filosofia neo-scolastica	0035-6247
Rivista di letterature moderne e comparate	0391-2108
Rivista di storia della filosofia	1972-5558
Rivista di storia e letteratura religiosa	2035-7583
Rivista storica dell'antichità	0300-340X
Rivista storica italiana	0035-7073
Studi e problemi di critica testuale	1826-722X
Studi francesi	0039-2944
Studi medievali	0391-8467
Studi storici	0039-3037
Teoria - rivista di filosofia	1122-1259

Tabella 3: Riviste italiane presenti in entrambi le banche dati

Paese	Documenti	Documenti citati	Citazioni	Auto-citazioni	Citazioni per documento
Stati Uniti	11.456	10.540	1.181	729	0,1
Regno Unito	5.583	5.058	700	412	0,13
Francia	2.060	1.939	171	79	0,08
Spagna	2.024	1.940	127	67	0,06
Germania	1.801	1.688	213	108	0,12
Canada	1.619	1.519	259	89	0,16
Australia	1.431	1.342	213	102	0,15
Italia	1.333	1.272	142	88	0,11

Tabella 4: Posizione dell'Italia nelle *Humanities* (SJR *Arts & Humanities* 2012)

Paese	Documenti	Documenti citati	Citazioni	Auto-citazioni	Citazioni per documento
Stati Uniti	537.308	493.337	341.608	194.260	0,64
Cina	392.164	383.117	105.523	62.551	0,27
Regno Unito	152.877	137.413	106.306	36.218	0,7
Germania	143.284	132.505	95.320	35.540	0,67
Giappone	118.768	111.893	50.816	18.510	0,43
Francia	102.474	95.534	61.977	19.797	0,6
India	98.081	91.366	25.665	11.829	0,26
Italia	85.027	77.747	54.621	18.813	0,64

Tabella 5: Posizione dell'Italia prendendo in considerazione tutti gli ambiti disciplinari (SJR *Arts & Humanities* 2012)

Editore	N. riviste
Leo S. Olschki	10
Fabrizio Serra Editore	7
G. C. Sansoni	3
Il Mulino	3
Carocci Editore	2
Loescher	2
Patron Editore	2
Rosenberg & Sellier	2
Vita pensiero	2
Amici del Museo del Risorgimento	1
Associazione trentina scienze umane	1
Biblical Institute Press	1
Brill academic publishers	1[41]
Cam Editrice	1
Cappelli Editore	1
Casa editrice Loffredo Luigi	1
Casa Risparmio	1
Centro Di	1
Centro di studi piemontesi	1
Centro italiano di studi sull'alto medioevo	1
E R I Edizioni Rai	1
Edizioni Ets	1
Edizioni scientifiche italiane	1
Edizioni Università Macerata	1
Electa Periodici	1
F. Le Monnier	1
Federazione italiana cineforum	1
Firenze University Press	1
Franco Angeli	1
Gangemi Editore	1
Historica	1

[41] Questa rivista sarebbe già stata conteggiata nelle 10 attribuibili all'editore Leo S. Olschki: è infatti una rivista pubblicata da due editori.

Editore	N. riviste
Il Poligrafo	1
Il Ponte editore	1
Istituto nazionale di studi romani	1
Istituto per la storia del Risorgimento italiano	1
Kim Williams Books	1
Le Lettere	1
Libreria Salimbeni	1
Mediterranea	1
New press	1
Nuova Italia editrice	1
Pacini Editore	1
Società editrice Dante Alighieri	1
Tilgher-Genova	1

Tabella 6: Editori delle riviste presenti nell'*Arts & Humanities Citation Index* 2012

Editore	N. riviste
Fabrizio Serra Editore	10
Il Mulino	8
Firenze University Press	4
G. C. Sansoni	3
Leo S. Olschki	3
Carocci Editore	2
Edizioni Università Macerata	2
Franco Angeli	2
Instituto Poligrafico e Zecca dello Stato	2
Le Lettere	2
Loescher	2
Patron editore	2
Rosenberg & Sellier	2
Vita pensiero	2
Banco di Roma	1
Biblical Institute Press	1
Bibliopolis, edizioni di filosofia e scienze	1
Cappelli Editore	1
Casa editrice Loffredo Luigi	1
Casa Risparmio	1
Casalini Libri Digital Division	1
Centro Di	1
Centro editoriale Dehoniano	1
Centro internazionale di studi di architettura Andrea Palladio	1
Centro italiano di studi sull'alto medioevo	1
Dept. of interdisciplinary studies in translation, languages and culture of the University of Bologna	1
E R I Edizioni Rai	1
Edizioni all'Insegna del Giglio	1
Edizioni Ets	1
Edizioni Orientalia Cristiana	1
Edizioni scientifiche italiane	1
Electa Periodici	1

Editore	N. riviste
F. Le Monnier	1
Federazione italiana cineforum	1
Gaetano Macchiaroli Editore	1
Gregorian University Press	1
Il Ponte editore	1
Ist. per la storia del Risorgimento italiano	1
Istituto della Enciclopedia Italiana	1
L'Erma di Bretschneide	1
Luciano Editore	1
Mucchi Editore	1
New press	1
Nuova Italia editrice	1
Pacini Editore	1
Pazzini editore	1
Scuola Beato Angelico	1
Società editrice Dante Alighieri	1
Stazione zoologica Anton Dohrn	1
Tilgher-Genova	1
Viella	1

Tabella 7: Editori delle riviste italiane presenti nello SJR *Arts & Humanities* 2012

Editore
Biblical Institute Press
Cappelli Editore
Carocci Editore
Casa editrice Loffredo Luigi
Casa Risparmio
Centro Di
Centro italiano di studi sull'alto medioevo
E R I Edizioni Rai
Edizioni Ets
Edizioni scientifiche italiane
Edizioni Università Macerata
Electa Periodici
F. Le Monnier
Fabrizio Serra Editore
Federazione italiana cineforum
Firenze University Press
Franco Angeli
G. C. Sansoni
Il Mulino
Il Ponte editore
Istituto per la storia del Risorgimento italiano
Le Lettere
Leo S. Olschki
Loescher
New press
Nuova Italia editrice
Pacini Editore
Patron Editore
Rosenberg & Sellier
Società editrice Dante Alighieri
Tilgher-Genova
Vita pensiero

Tabella 8: Editori presenti in entrambe le banche dati

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9. La diffusione delle scienze socio-economiche e umane nei programmi quadro europei di ricerca e innovazione

Monique Longo*

SOMMARIO: 1. Introduzione; 2. La delega della diffusione dei risultati; 3. Pubblicazioni; 4. I Policy Brief; 5. Strumenti on-line; 6. Open Access.

1. Introduzione

L'Unione Europea gioca un ruolo fondamentale nel disegnare le modalità e indirizzare le politiche di diffusione dei risultati della ricerca scientifica, in special modo nel settore delle scienze socio-economiche e umane.

Nella metà degli anni 80 attraverso il lancio del primo "Programma Quadro per la ricerca e lo sviluppo tecnologico" (1984-1988) la ricerca divenne una priorità Europea. Da allora si sono succeduti vari programmi quadro che hanno ampliato progressivamente lo spettro dei temi scientifici e tecnologici abbracciati, tra cui un insieme di temi afferenti alle scienze socio-economiche e umane.

L'obiettivo dei progetti finanziati in tali aree è di approfondire e condividere la conoscenza delle complesse sfide socio-economiche che l'Europa deve affrontare, quali (crescita, occupazione e competitività; la coesione sociale; sfide culturali ed educative in un'Unione europea allargata; sostenibilità; migrazione e integrazione; qualità della vita e l'interdipendenza globale) e sostenere le politiche europee. Di fatto i destinatari dei risultati delle ricerche sono sia la comunità degli accademici che gli attori politici, cui la Commissione Europea dedica

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delle azioni specifiche per assicurarsi che siano a conoscenza dei dati emersi dalle ricerche condotte dai ricercatori e avviare delle *evidence-based-policy*.

La Direzione L "Scienza, Economia e Società"[1] ha realizzato e sostenuto una serie di attività per assicurare il trasferimento di conoscenza dai ricercatori ai *policy-maker:*

- Conferenze,
- Workshop,
- Pubblicazioni.

La promozione e quindi diffusione dei risultati della ricerca, che chiameremo per brevità SSH, ha seguito percorsi differenti nel corso degli ultimi due programmi quadro (FP6 e FP7) e un loro confronto ci regala delle informazioni preziose.

La Direzione L "Scienza, Economia e Società" si è avvalsa del supporto esterno alla Commissione per la diffusione dei risultati di ricerca, attraverso il finanziamento di azioni di supporto (CSA) commissionate attraverso bandi a partenariati europei. Obiettivo delle CSA è stato quello si sintetizzare i risultati di ricerca e di presentarli in un linguaggio più vicino ai policy maker, oppure di realizzare delle piattaforme di discussine e scambio di informazioni tra ricercatori e stakeholders.

Dall'analisi dei dati emerge che il numero dei progetti (CSA) finanziati e il budget dedicato a tale attività è diminuito nel corso del 7° Programma Quadro, come dimostrano i grafici che seguono.

Della dotazione finanziaria di cui disponeva la Direzione L "Scienza, Economia e Società" nel 6FP, il 3% è stato dedicato al finanziamento di CSA di disseminazione, mentre nel FP7 solo l'1,05% è stato utilizzato per lo stesso scopo.

[1] La sezione della Direzione Generale Ricerca e Innovazione (Commissione Europea) che gestisce il Programma Scienze Socio-Economiche e delle Scienze Umane nell'ambito del 7° Programma Quadro.

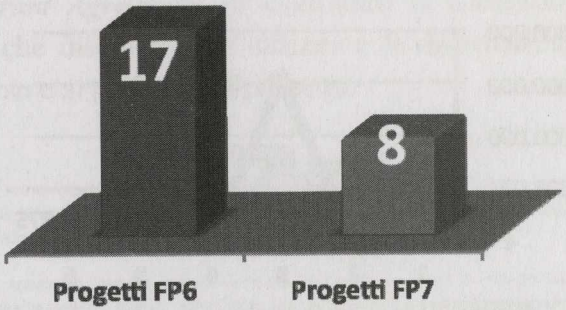

Figura 1: N. di progetti SSH volti alla disseminazione dei risultati della ricerca

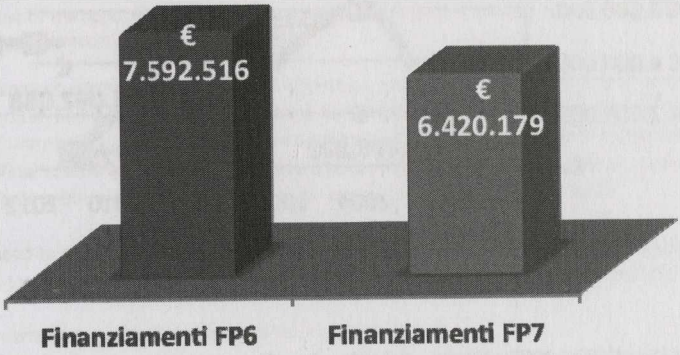

Figura 2: Finanziamenti (in EUR) per progetti SSH volti alla disseminazione dei risultati della ricerca

Ad un primo sguardo sembrerebbe che la Direzione L "Scienza, Economia e Società" abbia perso interesse per la diffusione dei risultati. L'impressione rimane se si compara la dote finanziaria devoluta a tale attività in ciascun anno dei 2 programmi quadro.

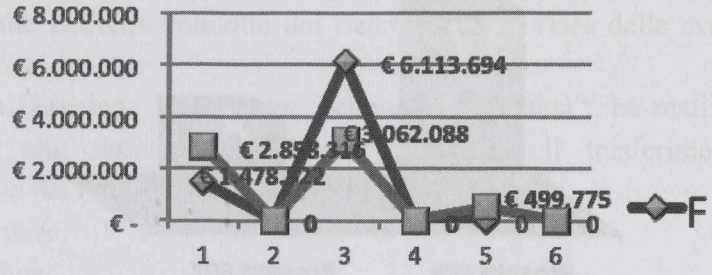

Figura 3: Trend dei finanziamenti - FP6 vs FP7

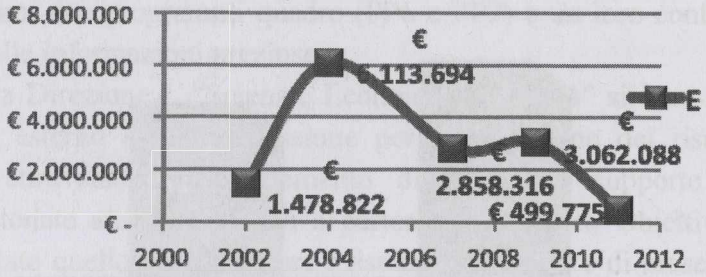

Figura 4: Trend dei finanziamenti (FP6-FP7)

2. La delega della diffusione dei risultati

La Commissione Europea non perde l'interesse, al contrario. La diffusione dei risultati della ricerca – in qualsiasi campo – è ritenuta fondamentale, tanto da divenire un **obbligo contrattuale**.

Già in fase di **valutazione** della proposta ai valutatori esterni verrà chiesto di verificare l'"impatto atteso" assegnando dei punti all'impatto derivante dalle attività di comunicazione e divulgazione. Inoltre durante la **negoziazione**, il *Project officer*[2] potrebbe chiedere di migliorare ulteriormente le attività di comunicazione.

[2] Il *project officer* è la persona all'interno della Commissione che monitora l'andamento del progetto, verificando che vengano rispettate le scadenze e consegnati i risultati.

Nel *Grant Agreement* (il Contratto) la Commissione inserisce degli articoli che disciplinano l'utilizzo e la diffusione dei risultati di ricerca nel corso e al termine del progetto.

Grant Agreement, Annex II.30. Dissemination

- Each beneficiary is to ensure that their foreground (the project's results) is disseminated as swiftly as possible. If it fails to do so, the Commission may disseminate that foreground.

Grant Agreement, Annex II.4. Reports and deliverables and *Guidance Notes on Project Reporting*

- The consortium has to provide a final publishable report including a **publishable summary** of such quality that the Commission can publish it right away in the public domain. It includes information on the expected final results and their wider societal implications. This text will be used as is on the Commission's public websites, so it needs to be understandable for a lay audience.

- The final report should include **a plan for the use and dissemination of foreground**, to demonstrate the added value and positive impact of the project on the European Union. It should include a list of all scientific (peer reviewed) publications relating to the foreground (the project's results) of the project, a list of all dissemination activities (e.g. conferences, flyers, articles published in the popular press, videos), a list of the applications for patents, trademarks, registered designs, etc., a list of exploitable foreground and a report on societal implications.

Grant Agreement, Annex II.4. Reports and deliverables and *Guidance Notes on Project Reporting*

- The consortium has to provide periodic reports that include a **publishable summary** of such quality that the Commission can publish it right away in the public domain. It includes information on the expected final results and their wider societal implications. This text will be used as is on the Commission's public websites, so it needs to be understandable for a lay audience.

- You will need to supply a link to your **website** and declare whether it is up to date. The link will be published together with general information on each funded project on the Commission's website.

Grant Agreement, Annex II.12. Information and communication

- Beneficiaries are to take appropriate measures to **engage** with the **public** and the **media** about the project and to **highlight the financial support** from the European Union.

- The Commission is authorised to publish information on the project.

Figura 5: Estratti del contratto che i ricercatori devono firmare con la Commissione Europea

Obiettivo della Direzione L "Scienza, Economia e Società" è di orientare i due gruppi in modo che i policy maker definiscano delle politiche basate su dati concreti emersi dalle ricerche e viceversa

> "Though research alone cannot solve Europe's complex social and economic problems, it can help us understand those problems more clearly and develop better strategies for dealing with them. This consultative capability makes research hugely valuable to the

> policymaking community. For without fresh, reliable evidence to base their decisions on, policymakers have only tradition and ideology to guide them. Today, with the European Union facing challenges on an unprecedented scale, the demand for policy-relevant research is greater than ever. Successive waves of enlargement have created a bloc that is larger and more heterogeneous than many could have imagined. Embracing 27 countries and nearly 500 million people, the European Union has reached a size and complexity that make it very difficult for the policymaking community to accurately judge the socio-economic status quo, much less change it."[3]

Il semplice obbligo contrattuale non ha garantito però un'efficace diffusione dei risultati. Quali sono stati gli ostacoli?

- I ricercatori non hanno conoscenza delle tecniche di comunicazione (poiché non è il loro mestiere); hanno personalità analitiche, non hanno una passione per la sintesi poiché temono che potrebbe impoverire il valore della ricerca. Inoltre il riconoscimento scientifico equivale a pubblicazioni scientifiche.
- I ricercatori e i *policy maker* utilizzano diversi linguaggi,
  - operano in contesti professionali differenti con incentivi e pressioni differenti
  - tradizioni differenti
  - tempistiche differenti
- Sebbene entrambi possano concentrarsi sugli stessi fenomeni socio-economici, li approcciano da angolazioni diverse con differenti priorità.
- In ricercatori non sono abituati a comunicare la loro ricerca; hanno seguito corsi focalizzati su materie scientifiche e non sono frequenti i corsi in tecniche di comunicazione. Inoltre i loro colleghi sono dello stesso settore e non vi è una contaminazione intersettoriale.

[3] European Commission, Directorate-General for Research (2010). *Communicating research for evidence-based policymaking: A practical guide for researchers in socio-economic sciences and humanities*, <http://ec.europa.eu/research/social-sciences/pdf/guide-communicating-research_en.pdf>.

La Commissione ha fatto un passo avanti pretendendo che l'attività di disseminazione fosse rispecchiata nella struttura dei progetti, avanzando talvolta tale richiesta in fase di negoziazione, e preparando i punti di contatto nazionale in modo che potessero sensibilizzare i ricercatori dei propri Stati a inserire un *Work Package "Communication & Dissemination" e* a costituire un team ad esso dedicato.

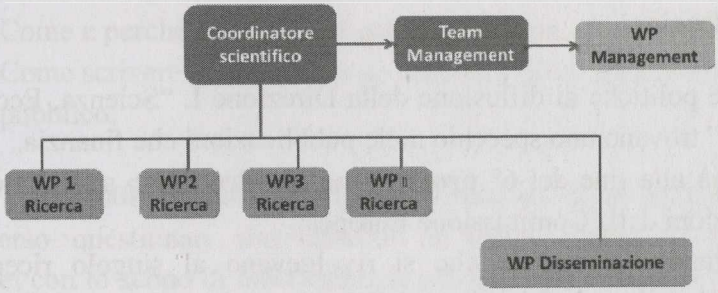

Figura 6

La Direzione L "Scienza, Economia e Società" ha fatto ricorso alle competenze di ricercatori nel settore della comunicazione (tra cui Prof. Thomas Tydén, Direttore Darlarna Research Institute di Svezia e il Dr. Alister Scott della University of Sussex) i quali hanno sostenuto l'urgente bisogno di andare oltre il modello unidirezionale di diffusione in cui i ricercatori presentano i loro risultati in blocco come un fatto compiuto alla fine di un progetto. Sotto tale spinta la Direzione L "Scienza, Economia e Società" ha avviato una serie di iniziative:

1) consultazioni
2) pubblicazioni
3) Strumenti on-line
4) sito SSH: e-library

Una serie di **consultazioni** e **conferenze** sono state organizzate con il duplice scopo di presentare i risultati della ricerca ai policy maker e dall'altro di raccogliere input e indirizzi di ricerca dagli stessi, con l'effetto collaterale di far conoscere tra di loro ricercatori e attori politici. Di seguito alcuni esempi al termine delle quali sono state fatte delle

pubblicazioni[4]:

- Conference *"Sustainable development: A challenge for European research"*, Brussels, 26-28 May 2009;
- Conference *"Mapping the future of the EU-US relationship: Policy and research perspectives"*, 25-26 January 2010.

3. Pubblicazioni

Le politiche di diffusione della Direzione L "Scienza, Economia e Società" trovano uno specchio nelle pubblicazioni che finanzia.

Già alla fine del **6° programma quadro** erano state fatte delle pubblicazioni dalla Commissione Europea.

Erano delle **guide** che si rivolgevano al singolo ricercatore guidandolo nella comunicazione della propria ricerca. La pubblicazione lavorava più che altro **sull'individuo** ricercatore, qualunque fosse il settore della sua ricerca.

Nel 7° Programma quadro l'approccio delle pubblicazioni cambia: la comunicazione è affrontata in modo sistemico, come elemento integrante dei progetti di ricerca.

- *European Research: a guide to successfull communication* (2004). Illustra gli strumenti da utilizzare per comunicare la propria ricerca (obiettivi e risultati), come realizzarli:
  - Media relations
  - Website
  - Publications
    - Why prepare print items?
    - Select type of publication
    - Brochure
    - Newsletter
    - Case history sheet
    - Poster

[4] Altre conferenze: <http://ec.europa.eu/research/social-sciences/conference-proceedings_en.html>

  - Design and production
  - Checking copyright
  - Printing choices
- Presentation
- audiovisual media
- Disseminati on strategy
- *Communicating research: a scientist survival kit* (2006).
  - Come e perché rivolgersi al grande pubblico, alla società civile.
  - Come scrivere un articolo o un testo che risulti interessante per il pubblico.

Nel 2008 vengono pubblicati i risultati di un'indagine svolta attraverso questionari somministrati a policy maker e stakeholder europei con lo scopo di individuare le modalità per "*bridge the gap*" tra scienza e politica.

In un periodo di sei mesi, la Direzione L "Scienza, economia e società" ha facilitato un processo di interviste e discussioni ad alto livello con gli attori politici europei, accademici, consulenti ed esperti di trasferimento di conoscenze.

Questo processo ha rivelato l'importanza di rafforzare il dialogo tra i decisori politici e ricercatori, al fine di massimizzare l'impatto dei progetti - finanziati nell'ambito dei programmi quadro - sulle politiche nel campo delle scienze sociali.

Le interviste identificano alcuni messaggi indirizzati a coloro che sono responsabili della definizione delle politiche a livello europeo e a coloro che sono coordinatori dei progetti.

Il messaggio centrale è che lo status quo è insoddisfacente. È necessario molto più sforzo per assicurare che i risultati del progetto informino i processi decisionali delle politiche in modo significativo. Ci sono ostacoli culturali e strutturali che devono essere superati per raggiungere i livelli di dialogo e di collaborazione che sono necessari al fine di ottenere quello che molti esperti del settore definiscono "comunità della conoscenza".

Le raccomandazioni che emergono si rivolgono sia a coloro che

sono responsabili della definizione delle politiche a livello europeo, sia ai coordinatori di progetto.

La **Direzione generale per la ricerca**, come finanziatore principale dei programmi quadro, ha difatti una responsabilità particolare per garantire che i progetti che sostiene comprendano appieno l'importanza di produrre del materiale utile, accessibile e significativo per i responsabili delle politiche.

La Direzione Generale ha anche un ruolo chiave nel garantire che i risultati del progetto siano diffusi in tutta la Commissione europea e informare i più alti livelli politici in quelle aree che presentano maggiore rilevanza economica, sociale e scientifico per l'Unione Europea.

I **coordinatori del progetto** d'altro canto dovrebbero essere incoraggiati a porre tra gli obiettivi della loro ricerca e dei loro programmi di lavoro l'utilità politica dei loro risultati, realizzando ciò che viene definita come *policy-oriented research.*

Essi dovrebbero inoltre includere nel loro team di progetto partner provenienti dal mondo del policy-making e di confrontarsi con la società civile al fine di garantire che il tema di ricerca prescelto risponda a settori prioritari per gli attori politici.

L'articolo si conclude con una dettagliata analisi delle risposte fornite dagli intervistati, che identificano una serie di modalità con cui i decisori politici e coordinatori di progetto possono rafforzare la loro cooperazione.

- *Scientific evidence for policy-making* (2008). Autore: Directorate L "Science, Economy and Society" - Directorate-General for Research of the European Commission

Di seguito si elencano le **raccomandazioni** indirizzate ai coordinatori di progetto e alla Direzione Generale Ricerca.

Project coordinators should:

- ❑ be encouraged to put the policy-usefulness of their research findings to the forefront of their objectives and their work programmes. This implies developing appropriate dissemination and knowledge sharing strategies from the earliest stages of project planning;
- ❑ include partners from the world of policy-making in their project team in order to ensure that the subjects chosen, as well as the scope of the research, respond to defined policymaking priority areas;
- ❑ ensure a dialogue between experts and non experts over the lifetime of their project, in order to ensure that they acquire the kind of local knowledge, lay knowledge and lay expertise which contributes to a socially robust scientific view ;
- ❑ develop more subtle ways of engaging with the broader public and embedding social and ethical reflection within the everyday practice of science;
- ❑ develop a programme and a methodology of dissemination of results over the lifecycle of their project in order to provide updated information on progress over time;
- ❑ reflect in terms of added-value of the work undertaken, not only in terms of the scientific research, but in terms of the policy-usefulness of the work undertaken;
- ❑ prepare policy briefings which are easily readable, understandable and useable by policymakers in framing and/or evaluating policies.

Main conclusion

Enhanced and ongoing engagement between researchers and end-users at every stage of the project life cycle is necessary in order to maximise project impact and ensure its policy-making relevance.

DG Research needs:

- strengthen its strategic cooperation across the European Commission by developing a targeted information sharing process in those areas which have major economic, social and scientific relevance for the EU. Collaboration with other Directorate-Generals and focused contribution of research results at each important stage in the development of policies is a key priority area;
- make greater efforts to ensure that those who are informing policy at the highest levels of the European Commission are informed of key project results. In particular the President's advisors need to be aware of project outcomes which can make an important contribution to policy definition and development;
- strengthen its role as a facilitator of communication and information sharing between projects and key actors and engagement between policy-makers and end users at every stage of the policy-making process at European and national levels;
- facilitate appropriate connections across the institutional spectrum, and research results informed dialogue with politicians and senior policy advisors so that policy-making benefits from the most up to date information available from the research community;
- recognise the wide variety of organisations which are involved in research. Wider access to funding will enhance competitiveness and ensure greater engagement between the world of research and the wider community;
- ensure that coordinators include appropriate dissemination and information sharing strategies in their projects which have the capacity to contribute to evidence-based policymaking at regional, national and/or European levels as appropriate.

Main conclusion
Policy-makers and programme funders need to be clear from the beginning of the kinds of results they expect from the research they fund .

4. I Policy Brief

Nel 2010 la Direzione L pubblica una guida che integra i risultati e le raccomandazioni dell'indagine fatta con i policy maker e la struttura dei progetti di ricerca che finanzia.

La prospettiva cambia rispetto alle pubblicazioni precedenti: l'interlocutore diventa il consorzio nella sua interezza, quindi il coordinatore insieme ai partner, e non più il singolo ricercatore che si affaccia al mondo. E' il progetto che dialoga con i policy maker e non più con l'intera società civile. Questo perché la pubblicazione risponde all'esigenza specifica della Direzione L e non più di tutta la Direzione Generale Ricerca che si occupa una varietà di temi scientifici.

Inoltre viene esplicitata la richiesta di coinvolgere i policy maker sin dall'inizio del progetto e non alla fine come fruitori di un pacchetto già pronto.

- *Communicating research for evidence-based policymaking: a practical guide for researchers in socio-economic sciences ad humanities* (2010).
  - Autore: Directorate "Socio-economic sciences and Humanities" - Directorate-General for Research of the European Commission
  - Contenuto: illustrazione di strumenti pratici di comunicazione da sviluppare nell'ambito di un progetto di ricerca.

Per quanto concerne gli strumenti operativi di comunicazione viene introdotto **il Policy brief**, uno strumento che se adeguatamente realizzato può intercettare l'interesse dei policy maker e dare una chance ai risultati della ricerca affinché entrino nel dibattito politico.

La commissione punterà molto su di essi pretendo che fossero previsti nei progetti con cadenza almeno annuale poiché offrono ai ricercatori la possibilità di articolare le loro conclusioni sotto forma di raccomandazioni costruttive.

La serie dei Policy Brief SSH viene lanciata nel 2008 ed è specificamente destinata a fornire orientamento per coloro che si occupano da un punto di vista politico della tematica in oggetto, che sia su un piano teorico o pratico. La guida offre una griglia per scrivere i policy brief e illustra alcuni esempi.

Inoltre nell'ottica di coinvolgimento degli attori politici sin dall'avvio del progetto la commissione richiede che siano organizzati degli incontri, Policy panels, con un numero ristretto di persone – tra

ricercatori e policy maker – per confrontare gli obiettivi del progetto con le agende politiche. In una fase successiva verranno presentati i risultati e discussi insieme. Già nel 6FP la Commissione organizzava dei **Dialogue workshop** tra ricercatori e attori politici, ma nel 7FP entra in gioco la delega delle attività di disseminazione e la responsabilizzazione del team di ricercatori sulla fruibilità dei loro risultati da parte degli attori politici. Per questo motivo la pubblicazione affronta anche questo tema con addirittura una guida su come organizzare l**a conferenza finale** – che soddisfi requisiti della commissione ovviamente.

- *Communicating EU Research & Innovation: a guide for project participants* (2012).
  - Autore: Directorate-General for Research & Innovation;
  - Contenuto: illustrazione di strumenti pratici di comunicazione da sviluppare nell'ambito di un progetto di ricerca e le modalità con cui la EC può aiutare i progetti nell'attività di disseminazione.

5. Strumenti on-line

La Direzione L "Scienza, Economia e Società", consapevole delle difficoltà dei ricercatori a lavorare con gli strumenti di comunicazione, ha realizzato un pacchetto per i coordinatori fornendo dei *template* già pronti per l'homepage e le pagine interne dei siti di progetto insieme alla seguente documentazione[5]:

- una breve guida per i coordinatori nella fase di sviluppo del sito di progetto;
- template preparati per Joomla e WordPress;
- o file PSD & JPG e I file html.

Inoltre la Direzione L ha rivisitato il proprio sito, creando una **e-library** che contiene tutti i documenti rilevanti prodotti nell'ambito dei progetti finanziati nel tema delle scienze socio-economiche e umane[6].

[5] Il tutto può essere scaricato al seguente sito: <http://ec.europa.eu/research/social-sciences/pdf/kit-web-projects-ssh-templates_en.zip>.

[6] <http://ec.europa.eu/research/social-sciences/library_en.html>.

6. Open Access

Attualmente la Commissione europea ha due politiche di Open Access in pratica. Entrambi mirano a garantire che i risultati di ricerca finanziati dal cittadino UE siano messi a disposizione della popolazione in generale in modo libero. In questo modo, Open Access è considerato un modo per migliorare il ritorno sugli investimenti in materia di ricerca e sviluppo fatti dall'Unione europea.

Nel dicembre 2007, il Consiglio scientifico del CER ha pubblicato le sue linee guida per Open Access, come follow up della Dichiarazione del 2006 "Open Access". Nel mese di agosto 2008, la Commissione europea ha lanciato l'Open Access Pilot Action nell'ambito del 7FP come fase di sperimentazione dell'iniziativa.

Queste iniziative richiedono che il ricercatore fornisca accesso aperto ad articoli derivanti dalla ricerca finanziato dalla CE, entro un periodo di tempo specificato. In particolare i ricercatori devono depositare articoli o testi – entro 12 mesi - in

- **institutional repository** del loro ente
- oppure **subject based/thematic repository**.
- oppure **Orphan Repository** per articoli che non possono essere depositati nè in institutional nè in subject-based/thematic repositories[7].

L'accesso aperto diventerà obbligatorio in Horizon 2020 con l'inserimento di una specifica clausola nel contratto.

[7] Maggiori informazioni su <http://www.openaire.eu/>.

10. Digital Humanities as a cross-disciplinary research task

Simon Mercieca*

1. Introduction

The raison d'être behind the writing of this paper is related to the participation of Mr. Frans X. Cassar and I in an EU-funded project within a COST action. This particular project is about the digitalization of European medieval documentation and is entitled ISCH 1005 Medieval Cultures and Technological Resources - Medioevo Europeo. In reality, it is a trans-disciplinary action, as its research base broaches onto the Early Modern Times and involves the input of linguists and computer programmers. It departs from the use of the Latin Language in Medieval Europe and seeks the integration of Latin dictionaries and narratives related to Europe's Middle Ages. Yet, the lexicological interest on one hand and the search for medieval narrative on the other prompted discussion among the different groups of scholars participating in this action. Legitimate queries of historical and cultural interest have been put forward. The author of this paper questioned the euro-centrality of the medieval research, which more often then not, translates itself into the study of the Latin-speaking sphere.

John Unsworth claims that research in the humanities needs new configurations, which can be acquired through the establishment of new

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models of knowledge-transfer. Provocatively, he calls for the rejection of established ontologies, taxonomies and hypotheses and instead emphasizes the need for scholars to rely more on the observation of patterns and correlations. In itself, such an approach may sound too radical but what Unsworth is proposing is the removal of the many perorations and taxing ideas that research in the humanities has been burdened with in recent times. Research needs to reacquire the simple empirical discourse that in the past allowed the formation of new narratives and comparisons among diverse disciplines, habits and environments.

The study of Medieval Europe offers an interesting case-study or perhaps even a challenge for the establishment of new narratives towards the writing of Europe's medieval past, but at least the action in question is seeking to create this new environment by bringing together Medieval and Early-Modern historians with computer scientists and experts in the Digital Humanities.

Even if most of Medieval Europe spoke one common language, that is, Latin, scholars are fascinated with the different innuendos that this language came to assume during the Middle Ages, where a number of Latin words began to assume different semantic meanings in different parts of Europe. The predominant use of Latin in Europe all along the Middle-Ages gave rise to a discussion how to integrate different Latin dictionaries containing past Medieval words into some sort of common database.

Such a *problematique* becomes even more acute when one seeks to transfer material from Medieval times into digital format. Our experience has shown that the Digital Humanities have been extremely "Latin" focused in the west, to the extent of ignoring or forgetting minority cultures that are part and parcel of Europe's cultural past. This study will seek to highlight such a covert dimension, in particular when the issue of diversity, as demographer Emmanuel Todd rightly points

out, is the key to the success of any future European country. The country which will establish the most diverse and comprehensive cultural policies, is the country destined to rule over Europe in the future (Todd, 1996).

This idea may sound at odds and in contradiction with the chronology of Europe's past. Yet, the internet, through its open access resources, is becoming a manifestation of the historical fallacy that Medieval Europe was a monolith system. Latin was not the sole European language in use in Medieval Europe but its predominance inevitably conditions and influences the work that is being done in the Digital Humanities. The adopted approach is highly Latin centric. Both the usage of the Latin Language and the cultural prestige that such a language assumed in Europe's Medieval past are leading to total neglect, if not abnegation, about the existence of other cultural realities in Europe during the medieval period. Without entering into the issue of the Latin language, which varied from one region to another, from one epoch to the next, there is no doubt that 90%, if not more, of the medieval texts were in Latin or in a language related to Latin. The remaining 10% of texts and documents are a myriad of different types of documents.

For a number of decades, Arabic was the predominant language in the Southern-Western part of Europe. Hebrew in its two main forms was spoken in different parts of Europe and the Mediterranean while Cyrillic and Greek was the main language in the Eastern part of Europe. In discussing the Middle Ages, these non-Latin languages are often forgotten and not considered as part Europe's Medieval Culture. At the same time, medievalists agreed that Europe was a multi-confessional and multi-cultural world throughout the Middle Ages. Therefore, it goes without saying that the compilation of such an ambitious list of Latin words faces a number of challenges. First and foremost, there is the multilingual factor.

2. Databases for Medieval Archival Material

The creation of different databases is the next challenge that needs to be highlighted. The issue here is vaster as it varies from language semantic problems to computer language ones.

Thus, the challenges are tough. Databases normally deal with quantitative data. The qualitative aspect is determined by the time span chosen for study, which in this case is the European Middle Ages. While one has to recognize the challenges that are offered by databases written in non-Latin and Romance language texts, at the same time, there is a general understanding among scholars that comparative studies are the way forward. Digital science is offering new domains helping in the interaction of scholars to solve complex problems by bringing different competencies to work together.

The conversion of abstract concepts into computer language is another problematic issue that characterizes the Humanities research. The challenge here is not only the programmer but also for the researcher. While computers work in terms of abstract binary numbers, European Medieval historians seek to conceptualize historical periods into categories, especially when specific dates are missing. Such concepts are even more problematic as different cultures within Europe assume different time concepts. Different time frames were used in Europe. Difficulties increase, when the so-called different epochs, which were based on diverse calendar systems, are studied. These difficulties are compounded since various works written during the medieval period are anonymous.

The academic world of the humanities tends to speak in terms of narrative sources. But again, one needs to specify what precisely is being understood by a narrative source. Normally, in history, by the word narrative, it is being understood a specific type of documentation that varies from *diplomatica and privilegium*, ecclesiastical canons and

incipits, judicial and notarial documents. The question that is usually asked is whether the notarial together with the rest of these documents could be understood as a narrative source? Trying to answer these questions is a challenge in itself. Notarial documents had different aims in Europe and there usage differed from one country to another. In Southern Europe, for example, notarial documents had a wider and more extensive use then in the Northern parts. Thus, narrative sources represent different ontological uses for the North and the South of Europe.

The issues related to the problems arising from the use of different computer languages are slowly being phased out. Changes and development in computer languages have made a number of personally developed databases obsolete. Experience has thought us that material stored in such type of databases is highly volatile. It can either get lost or is impossible to retrieve due to the change and development in computer language science. More reflection is needed and comparisons must be made in relation to the usage of different databases.

Administrators of libraries in general and archives in particular have by now accumulated a solid knowledge about the usage of the web and working with web-related databases. Various libraries have been connected through the web. Contact has been established between different libraries through a number of projects. The world of archives perhaps can appear to be still a little bit less connected.

The creation of databases rests normally the product of two divergent fields: institutional or personal. Irrespective of whichever of these two fields is used for the creation of datasets, what counts most is the interoperability through search engines. In this field, the metaphor of "the hub" and "the spoke model" has become extremely common. Another model is the so-called "follow your nose model".

The issue here is that of "metadata". In simpler language, it

means "data about data". But such a concept gives rise to ambiguous interpretations of the term. Today, it has ended up meaning two different concepts, structural and descriptive metadata. The first concept is about the design of data structures. The second focuses on the application of data content. Whatever the case, it is a term derived from the science of library cataloguing which is being applied more and more to digitalization of archival material and research. Digital work is more than ever showing that simple results depend on complex processes.

Furthermore, the success of these databases is in the adoption of scholarly criteria throughout their construction and search functions. As material on these databases increases and connection with other databases is created, an infrastructure Meta Search Engine would be needed. However, the research function should remain, in my opinion, a simple one. Success lies in the ability of dispatching simple queries. Sometimes, the solution is in the adoption of a horizontal approach.

Presently, in the field of history the most common databases are those of a medium size and they use what are known as VCMS, with an open access. The concept of hub takes hold and is a positive way forward.

Latin medieval dictionaries are slowly forming part of important databases accessible throughout the web. The use of dictionaries and vocabularies brings in the use of element sets and data sets. In simpler words, elements sets are obtained when data or entries in dictionaries convey sets of elements for databases. Thus, data sets are created. These words can be recorded in storage devices, which through the use of an electronic interface, can be transmitted and viewed through cross search on the net.

At the moment, medieval databases mostly focus on compiling medieval texts or narratives, in particular books in manuscript form that existed in medieval Europe. Originally, the idea was to create a sort of

prototypical onomisiological portal for Medieval Romance languages. A content-driven approach was adopted. This proved to be a success story and led to full version portals, with resources from all over Europe. Special databases have been created to compile data of medieval dictionaries or medieval narratives. One of the most important is the TRAME database, which was developed by Sismel in Florence. There are other databases such as Leder Dutche Material, Clavis Clavorum, DEAF Bibliographie, Mirabile, IDEA Dictionnaire, Scriptores.pl, CALMA, TROLLNORR, L'Europe Mediolatine du XXI siècle, etc. Portugal for example has developed a database of emigration from Portugal to Brazil[49].

A whole science has developed around the research system of Medieval Latin texts, narratives and dictionaries. This is known as "stematology" which has been ontologically defined as the study of the common Latin prefixes and suffixes in relation to the root of the Latin word. There is a serious risk that depositories that are being created for the Middle Ages are biased in favour of Latin. What about the other languages? The success of future medieval databases would rest in their ability to be connected to other depositories of non-Latin languages. If focus remains only on Latin, one is risking that the resources of these depositories will be constrained and such constraints normally result in superficial participation.

3. Data Management of Arabic and Hebrew Sources

For this reason, both the Arab and Hebrew scripts offer particular challenges to the digitization of documentation and databases as the languages follow a different structure to Latin. Therefore, these documents have their own challenges. This analysis is not taking into consideration the Cyrilic language, which goes beyond the scope of our study.

[49] <www.cepese.pt/portal/investigatio>.

The Arab language uses a different "stem" system, which makes research, from a western point of view, more problematic. The Arab language works on the root principle. Stematology will definitely work for Latin documents. But, it will not work with dictionaries of Arabic languages. Thus, the advancement of such systems will definitely enhance research of Europe's Medieval past, but there is a serious risk of increasing the already existing cultural divide in Europe. Such a system excludes completely the Semitic languages, such as Medieval Hebrew and Arabic. Yet, one needs to remember that these civilizations were part of Europe in the Middle Ages. Spain, Southern Italy, Sicily and Malta were under Arab rule. Some areas were held for very short periods, but for other areas, the Arab period extended to a number of centuries. Jews were present all over Europe and the Mediterranean throughout the Middle Ages. Therefore, one risks advancement in the science of stematology at the expense of other linguistic components, which were also part of Europe's Medieval past.

In the Arabic tradition, documents are associated with periods belonging to the Hagira Era, which is based on the lunar year. Furthermore, different Emirs had also their own calendar systems, which are not always easy to translate into the present solar calendar in use in Europe. In the West, these problems of chronology have, in part, been overcome thanks to the fundamental works of A. Cappelli (1969).

At least in the study of Arab rule in Europe, European historians are spared the Arab epistemological dilemma wherein history is considered only to have begun with Islam! The pre-Islamic period is looked down upon, as a sort of a "dark age" in their historical annals.

Here, parallels can and should be made. Important work is currently being undertaken in Northern Europe through the study of medieval pre-Christian religions. The language used by these cultures was not Latin. Iceland, for example, used Runes. Here too research becomes complicated since, for example, Iceland destroyed most of her

Christian-Latin texts during the Reformation. Yet, there is a great will to reconstruct digitally the lists and texts of the destroyed Latin texts present in Iceland prior to the Reformation. Perhaps, the same should be done to re-establish Arab texts and/or texts of origins that were present in Southern Europe but went missing. However, one should note that there is less resilience and the collective academic will is by far less forceful.

4. Arabic Databases

Malta is one of those Southern European countries, which should express a special interest in the collection of Arabic texts, considering that the Arabs ruled Malta throughout the High Middle Ages, from 869/70 to 1091 (Mercieca, 2010). However, a complex and articulated study on these sources is still missing. Malta still lacks a comprehensive authoritative list of medieval documents related to this period. The Island even lacks lists related to the preceding Byzantine and succeeding Latin period. What currently exists, are studies about different catalogues and documents.

I hope that this work will serve as the first step in the right direction, which eventually will lead to creating a database of Malta's medieval documents. This database will be a welcome addition to the datasets of existing medieval historical databases. It can be constructed on existing monographs or papers on aspects of one of the different genre of documentations present in the Maltese and foreign archives. In the case of Malta, this is the way forward. It is now time that Malta's Medieval sources became part of the new world of Digital Humanities.

The question remains as to how, in concrete terms, these documents or resources on the net of Arabic documents and databases can become more accessible to the European scholar. The language barrier and alphabet remain the most pressing problem that needs to be overcome both academically and more importantly, psychologically.

Yet, the main problem for processing Arabic historical data is related to data management. The so-called mash-up process needs to have its ontologies better defined. The inquiry language is extremely important in this case. One has to admit that there are various types of inquiry languages, which can help in the sharing of datasets. Perhaps, at this point, the major consideration that needs to be made is that the management of data needs to be processed through real statements. Finally, the human element remains important, as the information into the semantic web needs to be fed by individuals.

In a situation where, in the West, Arabic documentation is significantly missing, one needs to reconstruct what Arab texts were being used in Spain, Sicily and Malta. Once a comprehensive list is created, a search for the presence of electronic editions of these missing Arab documents and texts can be undertaken. Obviously, concentration should be on quality rather than quantity, which a web research can demonstrate is infinite. Technological advancement, in this area, is facilitating web research. Word Clouds, for example, are becoming more and more popular for the search of same topics on the world-wide-web. The semantic web makes use of machine reading programmes to turn paragraphs into Word Clouds.

The next process would be to harvest existing web data and databases of Arabic languages focusing on Medieval Arabic. A joint effort is needed between computer programmers and historians in order to understand the best way to move web data from one database to another, provided that there is consent on both sides. Perhaps, one could dream of establishing a new portal even if, what is being suggested in this paper, is for existing portals to take up the challenge and make their portal site versatile to Arabic documentary resources as is happening to non-Arabic European languages. These can serve as interesting pilot projects. Normally, open access web data allows for such free exchange of information. The challenge here is to understand what types of changes are needed for European Medieval databases to interconnect

with the non-European ones. If integration of material is problematic, then the least that could be done is to facilitate the hyperlinks between different databases and sites.

An inventory of the available resources on the world-wide-web becomes important. Data models or information categories need to be established so that it would clear what type of resources to be included. Furthermore, it leads to the establishment of what type of data there is in the resources. Manuscript catalogues belonging to archives and libraries need to be gathered to establish precise information. Sample documentation helps in establishing what are the needs of the researchers, what structures should be built and how computer programmers can provide the best solutions and propose the best ontologies.

For those conversant with Arabic, the web is a great source of information that can be of great relevance to the presence of documentations in Arabic relevant to the history of Europe. Different categories of Arabic databases exist with the most important information is offered in pdf or other format and most of this documentation is accessible to the general public for free.

As one can imagine, the sites in Arabic primarily concentrate on Islam but there are also those relating to Arabic history and Literature. However, the Islam sites are numerous and dominate the web. Islam's concept of history and documentation differs from that of the West, which normally follows a secular epistemology. At times Islamic sites may appear a misnomer, for some focus more on Arabic Culture, Muslim history and grammar. These sites are basically the work of Arabic and Muslim scholars who have studied in the West. Some of these sites are managed by individuals rather than institutions, but still offer material, which can be of great help in assessing Arabic history in Europe. They tackle particular branches of literature, religion, grammar, and some publish historical documents. It is encouraging that sites are

being created in English, such as Academia.edu giving information about current publication of books about Arabic history and documents related to Medieval Islamic History[50].

5. The Situation in Malta

Until recently, Malta was lacking behind in the field of the Digital Humanities. There are no portal and meta-databases on Maltese history. The creation of a department specialization in this area with the University of Malta's Alma Mater, was definitely the right decision. On a personal note, the History Department is currently working towards the creating a database of Malta's population stretching back to the early sixteenth century. Yet, professional support is needed to establish a successful population platform.

It should be pointed out, that when one works on Malta's Medieval past, one is faced with anonymous and undated documents. One also tends to speak in terms of abstract timeframes. This is especially the case when it comes to the medieval period. The date of production of certain Arabic Medieval documents is unknown and they are approximately dated without specifying any date. In database building, this creates problems of an ontological nature. In the case of Malta, the dating problems persist in the subsequent decades and, possibly, they are even more acute for the fifteenth century as in some cases, the dating becomes even more problematic when dealing with periods calculated according to the Late Medieval system of indications, which means that a cycle of years was calculated, in the case of Malta, over a fifteen year period. Also, the year tended to begin on 25th March, known as the "Ab Incarnazione" system. The conversion of the indictions and "ab incarazione" into years can sometimes be problematic.

[50] <http://academia.edu/Documents/in/Medieval_Islamic_History>.

Thus, when one comes to work on Arabic documentation related to Europe's Medieval Past, one needs to face the same three-tier levels of data, which is normally identified with Western databases. These are:

a) Data structures or specifications
b) List of resources to establish links within different contexts
c) What is expected from the tool that is being used?

While the first point has been attempted and discussed at length in the introduction to this study, the second point is the subject of the following inquiry. Finally, the conclusion will seek to answer the third point. Thus, Arabic documentation relevant to the history of Malta will be used to illustrate the second point and the historic problems related to the digitalization process as a canon of history. The historical texts for such an enquiry have been, in part, downloaded from Arabic and Muslim databases. These are being used for the reconstruction of the main Arab corpora related to the history of Malta. The Arab period of Malta officially extended from 870 to 1091, even if the Arab influence continued to linger on in the following decades and centuries to the extent that some of the Arab resources about Malta's Arab period date back even to post 1091. However, even if the Arab period lacks massive documentation, it left an undeniable mark on the Island's history. Yet, the challenge in studying this period is not only historical; it is also sociological and anthropological.

Surviving written material is not vast, while the ontological elements of these documents, clearly qualifies these as Medieval Arabic narratives. Most of the documents have already been published. Arab scholars were not working on original manuscript documents but tended to work on republished Arabic texts and editions. Even in this case, the Arab/Muslim epistemology tends to differ from the Western canons of manuscript editions.

Most of the documents consist of geographical descriptions of Malta by famous Arab geographers. Then there are original inscriptions on tombstones, which are written evidence of abstracts from the Koran. These types of relics are considered, by the Western history canon, as part of medieval narrative. The third type of documentation consists of Arabic texts or narratives published in the West. In the case of Malta, these Arabic narratives were published in Latin characters.

Thus, first and foremost, as a conclusion to this paper, Malta is still lacking from an authoritative list of Arab works and authors, which are relevant to Malta's history. The Digital Humanities is proving to be an occasion for the discovery of new historical texts, written by Arabic scholars, about the history of Malta.

But unlike later periods, Arabic history of Malta lacks manuscripts of what are known as Latin *diplomatica* or *incipits*. Works of a hagiographic nature are also lacking. The closest are sepulchral inscriptions dating to post-Arab times. This intangible heritage, chiseled in stone, should also be digitalized. From a historical point of view, icons and pictures are another type of Medieval document. The same holds for archaeological data. More recently to our times, a coin was discovered which was claimed to date to the Arab period. Besides the problems that the inscription on this coin caused in relation to Malta's history since the Emir thereon does not tally with the chronology of Arab rule in Malta, (but this is beyond the scope of this paper), one strongly suspects that this is one of those coins produced in the Eighteenth century as part of the forgeries made in support of Abate Giuseppe Vella's claims regarding the Arab period of Sicily and Malta, whose work, I shall be discussing further down in this paper ("Giuseppe Vella", 2014).

Malta begins to get rich in books containing references to Medieval European manuscripts and documents, in particular those of religious and ecclesiastical nature published during the sixteenth,

seventeenth and eighteenth century. Many of the original documents are now lost forever and thus prompting modern historians to question the authenticity and reliability of these works. The issue of authenticity becomes more marked as in some cases, authors chose to publish Arab texts using the Latin alphabet. The reason for such a decision was due to the fact that printers, at the time, lacked Arabic characters. Therefore, the decision was to transliterate Arab texts into Latin.

These transliterated Arabic documents offer an interesting challenge to Digital Humanities. Arab documents have always been studied from a Western point of view. Trying to study them from a digital point of view is a challenge and might offer new perspectives. In this case, I have identified two sources of interest. The first one is the translation into Arabic of the biblical account of St. Paul's shipwreck in Malta. From a historical point of view, this is an extremely interesting passage, as it is reputed that most (if not all) Medieval Arab Bibles had gone missing. Thus this text is of considerable importance. In this case, Francis X. Cassar went through the painstaking exercise of reconstructing the Arabic text. In other words, he re-transliterated the Arab text from the Latin rendition into Arabic in a successful attempt to recreate the original text in Arabic characters. As it is expected, such an exercised revealed that the Arabic text has a number of subtle textual differences from the Latin canon used for the same text. But such a study goes beyond the scope of this study. The reconstructed Arabic text is being published as appendix to this paper.

The second text, which is of particular importance, is that of Abate Giuseppe Vella. Vella, in the eighteenth century, claimed to have discovered and published Arabic *diplomata.* Vella's published documents under the title of *Il Consiglio di Sicilia.* The original documents do not exist but it is a known fact that Vella consulted Arabic documentation existing at the time in Sicily. However, the problem with Vella is that it is not clear where he included these documents into his work while adding his own fabrications! Thus, it is not clear where the

original Arabic documents stop, if indeed he had incorporated such material, and where his forgeries begin (Freller, 2001). It should be noted that most of the accusations against Vella's work came from European scholars, many of whom, were not even conversant with the Arab language. As rightly observed by Giuseppe Giarrizzo, (whose quote was reproduced by a sympathizer of Vella who written the short biographical note for the Italian Wikipedia), Vella's works are *"un documento capitale delle idee correnti allora nella cultura siciliana sulla storia dell'isola, sulla genesi del suo diritto pubblico, sul significato storico politico di istituti ed uffici; e come tale merita di essere letta e studiata"*[51].

In other words, Abbe Vella's publication of Arabic documentation is a document of spoken Arabic language in the eighteenth century, when these documents are reputed to have been forged. There could also be Arab reproductions of Arab documents of the 11th and 12th centuries or a mixture of both. These queries have not yet been tackled and studied in a satisfactory manner. Moreover, Vella has always been studied from a Western Latinized perspective but never from an Arabic philological point of view. Furthermore, his text has not yet been studied from a linguistic and through what is known as structural text analysis. Digitalizing the text can help in the undertaking a mathematical textual investigation of this work. This goes beyond the normal historical analysis. This would help in solving this historical dilemma and perhaps could lead to create new lexical corpora that will sift the real documents (if they exist) from the fabricated ones.

6. Conclusions

What I have sought to present in this paper is a dynamic way forward in the study of Malta's Arab period in particular and that of the humanities in general. The collection and incorporation of Arabic

[51] http://it.wikipedia.org/wiki/Giuseppe_Vella

documents in databases can help in the codification of this material. This would definitely assist in assembling Arabic textual corpora of Maltese history and thus assists in their employability towards the study of Europe's Medieval past. In other words, Franco Moretti's point of view is being upheld here that "the use of technology to study literature is only radical when you consider it in the context of the humanities... Mining texts for data makes it is possible to look at the wider picture – to understand the context in which a writer worked on a scale we haven't seen before" (Moretti, 2000; Moretti, 2013; Sunyer, 2013). Cross-checking the literary narrative of the text is normally undertaken, amongst other, in terms of algorithms, z-scores, principal component analysis, clustering coefficients.

Thus, Malta can have its own Arabic Textual Corpora for Maltese History and this can be the first step towards the creation of a proper digital archives of Arabic documents for Maltese history.

Publications as the current one and participation in collective projects, whether under the umbrella of the European Union or otherwise, foster collaboration and stimulate missions and the learning of new techniques. They help scholars to get to know and perhaps also use instruments not available at home institutions. Conferences normally have a dual function: to learn how databases are organized and resolve technical problems. On my part, I focused on the first part of the question. The challenge is in the adoptability of the non-Latin script and how such a text can be transmitted through the web within the European scientific framework. The multi-lingual challenges can be overcome through inter-connectability between crude historical material and the *problematique* of digitalizing such data.

Post- modern culture is sometimes viewed as failing to offer new solutions to the challenges that the humanities are facing in the digital age. The humanities are continuously viewed as a complex set of multiple and different fields of research, hard to be dealt with as a whole.

The problems are linked to the multiple dimensions of the disciplines within the folds of what in the positivistic age was termed as the "Arts". Analyzing and comparing diverse information policies can be the way forward to solve these complex problems. Digital technology is offering the technological roadmap that meets both the short-term and the long-term goals of the humanities. Perhaps, what is needed is less individualistic spirit, which is so common in the humanities, and more collaborative research across the board.

7. Appendix: Transliteration of a lost Arabic Textual Corpora

The Account of St Paul's shipwreck in Malta as reproduced by Gian Francesco Abela in 1647. It was extracted from the Acts of the Apostles of a lost Ancient Arabic Bible (Abela, 1647) by Frans X. Cassar.

Latin transcription by Ġian Franġisk Abela (F.X. Cassar)	The Arabic transcription (F.X. Cassar)	Official Catholic version from the 'Acts of the Apostles'
(27) Va men baad arbaat afcer iu-mam tohna fi Hadràir il bahhar fi antaffaf alleil; üa dhannu al-melahhùn anhom iadrun men alardh,	(27) ومن بعد أربعة عشر يوما طحنا في هدريار البحر في منتصف الليل وظنوا الملاحون انهم ينظرون من الأرض	(27) فَلَمَّا كَانَتِ اللَّيْلَةُ الرَّابِعَةُ عَشْرَةُ وَنَحْنُ نُحْمَلُ تَائِهِينَ فِي بَحْرِ أَدْرِيَا ظَنَّ النُّوتِيَّةُ نَحْوَ نِصْفِ اللَّيْلِ أَنَّهُمُ اقْتَرَبُوا إِلَى بَرٍّ.
(28) falafu albulis fauagdu chamfet aafcirin qama, thom fa-ru qalil fauagdu chamfet aafcerqamat.	(28) فالقوا البولس فوجدوا خمسة عشرين قامة ثم ساروا قليل فوجدوا خمسة عشر قامة	(28) فَقَاسُوا وَوَجَدُوا عِشْرِينَ قَامَةً. وَلَمَّا مَضَوْا قَلِيلاً قَاسُوا أَيْضاً فَوَجَدُوا خَمْسَ عَشْرَةَ قَامَةً.
(29) fachofna en naKaa fi muadhaa ffaabe. falaqu arbaa mrafi fi mauchar almarKeb, va Konna neduu an iacun naha-ran.	(29) فخفنا أن نقع في مواضية صعبة فألقوا أربعة مراسي في مؤخر المركب وكنا ندع أن يكون نهارا	(29) وَإِذْ كَانُوا يَخَافُونَ أَنْ يَقَعُوا عَلَى مَوَاضِعَ صَعْبَةٍ رَمَوْا مِنَ الْمُؤَخَّرِ أَرْبَعَ مَرَاسٍ وَكَانُوا يَطْلُبُونَ أَنْ يَصِيرَ النَّهَارُ.

(30) Famà almelahhun faradu alharb, men alsafinet balardh.	(30) فما الملاحون فأرادوا الهرب من السفينة بالأرض	(30) وَلَمَّا كَانَ النُّوتِيَّةُ يَطْلُبُونَ أَنْ يَهْرُبُوا مِنَ السَّفِينَةِ وَأَنْزَلُوا الْقَارِبَ إِلَى الْبَحْرِ بِعِلَّةِ أَنَّهُمْ مُزْمِعُونَ أَنْ يَمُدُّوا مَرَاسِيَ مِنَ الْمُقَدَّمِ
(31) flama ra Bulos daleK qal lelqa-ied üa lelgionàd. An kan hu-lai lam iaqimu, üa iatbatu fi alfafina, lam taqdarùn antom taaifciu.	(31) فلما رأى بولس ذلك قال للقائد وللاجيوناد إن كان هؤلاء لم يقيموا ويثبتوا في السفينة لم تقدرون أنتم تعيشوا	(31) قَالَ بُولُسُ لِقَائِدِ الْمِئَةِ وَالْعَسْكَرِ: «إِنْ لَمْ يَبْقَ هَؤُلاَءِ فِي السَّفِينَةِ فَأَنْتُمْ لاَ تَقْدِرُونَ أَنْ تَنْجُوا».
(32) Aand daleK qattaau al-fciarat habel alqareb men al-marKeb, üa tarKuh taihan;	(32) عند ذلك قطعوا الشعارات حبل القارب من المركب وتركوه طيحا	(32) حِينَئِذٍ قَطَعَ الْعَسْكَرُ حِبَالَ الْقَارِبِ وَتَرَكُوهُ يَسْقُطُ.
(33) fa-ma Bulos annu Kan lama efsbahh, Kan iafalohom egimaain an iaqbelu ttaaman, üa iaqullo-hom en laKom arbaat aafcer iuman lam taduqu fcian men alfazaa,	(33) فما بولس انه كان لما اصبح كان يسألهم أجمعيا أن يقبلوا الطعام ويقول لهم إن لكم أربعة عشر يوما لم تذوقوا شيئا من فزع	(33) وَحَتَّى قَارَبَ أَنْ يَصِيرَ النَّهَارُ كَانَ بُولُسُ يَطْلُبُ إِلَى الْجَمِيعِ أَنْ يَتَنَاوَلُوا طَعَاماً قَائِلاً: «هَذَا هُوَ الْيَوْمُ الرَّابِعُ عَشَرَ وَأَنْتُمْ مُنْتَظِرُونَ لاَ تَزَالُونَ صَائِمِينَ وَلَمْ تَأْخُذُوا شَيْئاً.
(34) üa ana attlob alaiKom en taqbelu ttaaman lequam hhiatoKom; lennoh lam iadhiaa fciaaret üahede men ruas (P. 228) ahhed menKom.	(34) وأنا أطلب عليكم أن تقبلوا الطعام لقوام حياتكم لأنه لم يضيع شعرة واحدة من رأس (ص 228) واحد منكم	(34) لِذَلِكَ أَلْتَمِسُ مِنْكُمْ أَنْ تَتَنَاوَلُوا طَعَاماً لأَنَّ هَذَا يَكُونُ مُفِيداً لِنَجَاتِكُمْ لأَنَّهُ لاَ تَسْقُطُ شَعْرَةٌ مِنْ رَأْسِ وَاحِدٍ مِنْكُمْ».
(35) üa lama qal tanauel chobzan, üa fabahh Allah amamohom agimiaahom, üa Kasàr üa ached fi alaKal,	(35) ولما قال تناول خبزا وسبح الله أمامهم أجمعيهم وكسر وأخذ في الأكل	(35) وَلَمَّا قَالَ هَذَا أَخَذَ خُبْزاً وَشَكَرَ اللهَ أَمَامَ الْجَمِيعِ وَكَسَّرَ وَابْتَدَأَ يَأْكُلُ. فَصَارَ الْجَمِيعُ
(36) üa taazu giamihom, üa qablu ttaa-man.	(36) وتعزوا جميعهم وقابلوا الطعام	(36) مَسْرُورِينَ وَأَخَذُوا هُمْ أَيْضاً طَعَاماً.
(37) üa Kanu fi alsafinet mai-tain üa fettet üa febaain nafsan.	(37) وكانوا في السفينة ميتين وستة وسبعين نفسا	(37) وَكُنَّا فِي السَّفِينَةِ جَمِيعُ الأَنْفُسِ مِئَتَيْنِ وَسِتَّةً وَسَبْعِينَ.

(38) üa lama fcebaau men alttaam giaalu iachafëfu men alsafinet, üa hhamlu hhonta, üa alqu fi albahhar.	(38) ولما شبعوا من الطعام جعلوا يخففوا من السفينة وحملوا حنطة والقوا في البحر	(38) وَلَمَّا شَبِعُوا مِنَ الطَّعَامِ طَفِقُوا يُخَفِّفُونَ السَّفِينَةَ طَارِحِينَ الْحِنْطَةَ فِي الْبَحْرِ.
(39) flàma ttalaa alnahàr lam iaarefu almalahhùn aiet ardh hi, lenhom abfaru barr men baaid, üa Kanu iahamû en iadfaau alsafinet alaih en amKanohom,	(39) فلما طلع النهار لم يعرفوا الملاحون أية أرض هي لأنهم أبصروا بر من بعيد وكانوا يهموا أن يدفعوا السفينة عليه ان امكنهم	(39) وَلَمَّا صَارَ النَّهَارُ لَمْ يَكُونُوا يَعْرِفُونَ الأَرْضَ وَلَكِنَّهُمْ أَبْصَرُوا خَلِيجاً لَهُ شَاطِئٌ فَأَجْمَعُوا أَنْ يَدْفَعُوا إِلَيْهِ السَّفِينَةَ إِنْ أَمْكَنَهُمْ.
(40) faqattaau al mrafi men al-marKeb, üa tarKuhafi albahhar, üa hhattu maKeb affaKanat, üa alqu fciraan ffaghir aani taranKit lelrihh, allatì tahab, üa Kanu ifiru nahhu albar,	(40) فقطعوا المراسي من المركب وتركوها في البحر وحطوا مكب السكنات وعلقوا شعارا صغيرعان ترنكيت للريح التي تهب وكانوا يسيروا نحو البر	(40) فَلَمَّا نَزَعُوا الْمَرَاسِيَ تَارِكِينَ إِيَّاهَا فِي الْبَحْرِ وَحَلُّوا رُبُطَ الدَّفَّةِ أَيْضاً رَفَعُوا قِلْعاً لِلرِّيحِ الْهَابَّةِ وَأَقْبَلُوا إِلَى الشَّاطِئِ
(41) famefset alfafinet maudhaan aali bain ghurain men albahhar, üa genhhet fih. faqam aaliha gianbaha ala-üal, üa lam taKun tethharreK, fáma gianbaha almuacher enhal men oosf il muagi.	(41) فمشت السفينة موضعا عالي بين غورين من البحر وجنحت فيه فقام عليها جنبها الامام ولم تكن تتحرك فاما جنبها الموخرانحل من عصف الموعاج	(41) وَإِذْ وَقَعُوا عَلَى مَوْضِعٍ بَيْنَ بَحْرَيْنِ شَطَّطُوا السَّفِينَةَ فَارْتَكَزَ الْمُقَدَّمُ وَلَبِثَ لاَ يَتَحَرَّكُ. وَأَمَّا الْمؤَخَّرُ فَكَانَ يَنْحَلُّ مِنْ عُنْفِ الأَمْوَاجِ.
(42) Faradu alfciurat en iaqtalu alafari, liala iasbahhu, üa iahrabu	(42) فأرادوا الشورات أن يقتلي الأساري للا يسبحوا ويهربوا	(42) فَكَانَ رَأْيُ الْعَسْكَرِ أَنْ يَقْتُلُوا الأَسْرَى لِئَلاَّ يَسْبَحَ أَحَدٌ مِنْهُمْ فَيَهْرُبَ.
(43) menhom; famanahom alqied men daleK, lennuh Kan irid en iahhi, üa iachallafi Bulos; üa alladin Kanu iaqdarun iasbahhun amarhom en iasbahhun fi alaüal, üa iaab-ru ala albar;	(43) منهم فمنعهم القائد من ذلك لأنه كان يريد أن يحي ويخلس بولس والذين كانوا يقدرون يسبحون أمرهم أن يسبحون في الأول ويعبرون على البحر	(43) وَلَكِنَّ قَائِدَ الْمِئَةِ إِذْ كَانَ يُرِيدُ أَنْ يُخَلِّصَ بُولُسَ مَنَعَهُمْ مِنْ هَذَا الرَّأْيِ وَأَمَرَ أَنَّ الْقَادِرِينَ عَلَى السِّبَاحَةِ يَرْمُونَ أَنْفُسَهُمْ أَوَّلاً فَيَخْرُجُونَ إِلَى الْبَرِّ،
(44) üa albaqi aala	(44) والباقي على ألواح و على	(44) وَالْبَاقِينَ بَعْضُهُمْ عَلَى أَلْوَاحٍ

alaüahh, üa aala iidàn men alsafinet aabamhom. fanagiu begia-miihom alardh,	عيدان من السفينة أمامهم فنجوا بجميعهم الأرض	وَبَعْضُهُمْ عَلَى قِطَعٍ مِنَ السَّفِينَةِ. فَهَكَذَا حَدَثَ أَنَّ الْجَمِيعَ نَجَوْا إِلَى الْبَرِّ.
CAP. VIGESIMVM OCTAVVM	**الأصحاح الثامِنُ وَالعِشْرُون**	**الأصحاح الثامِنُ وَالعِشْرُون**
(1) Va men baad daleK aftach-baru en taleK algiaziret ti dii MALTTIE,	(1) ومن بعد ذلك استخبر ان تلك الجزيرة تدعي (ص 229) مالطا	(1) وَلَمَّا نَجَوْا وَجَدُوا أَنَّ الْجَزِيرَةَ تُدْعَى مَلِيطَةَ.
(2) üa albarbar alladin Kanu faKan fiha adharule-na ahhffan üa rahhmet giazi-let, üa adhmaru naran üa adaa-una Kolna lenefftali legel al-mattar alKathir, üa albard, alladi Kan.	(2) والبربر الذين كانوا سكان فيها اظهروا لنا احسان ورحمة جزيلة وادمروا نارا وادعونا كلنا لنصطل لأجل المطر الكثير والبرد الذي كان	(2) فَقَدَّمَ أَهْلُهَا الْبَرَابِرَةُ لَنَا إِحْسَاناً غَيْرَ الْمُعْتَادِ، لأَنَّهُمْ أَوْقَدُوا نَاراً وَقَبِلُوا جَمِيعَنَا مِنْ أَجْلِ الْمَطَرِ الَّذِي أَصَابَنَا وَمِنْ أَجْلِ الْبَرْدِ.
(3) Fahamel Bulos Kathir mê alqafc, üa üadhaa aala annar. facharget menhom afaa men fa-chunet annar, üa furaha, üa nahfciet iduh.	(3) فحمل بولس كثير ما القش ووضعها على النار فخرجت منهم أفعى من سخنة النار وفرها ونهشت يده	(3) فَجَمَعَ بُولُسُ كَثِيراً مِنَ الْقُضْبَانِ وَوَضَعَهَا عَلَى النَّارِ فَخَرَجَتْ مِنَ الْحَرَارَةِ أَفْعَى وَنَشِبَتْ فِي يَدِهِ.
(4) Fláma rauha al-barbar maallaqe fi iduh qalu leella hada al rogiol qatuli, edna-gia, üa tachallaff men albahhar; lam iatarKuh alaadel en iahhia. fáma Bulos afciar idduh,	(4) فلما رأوها البربر معلقة في يده قالوا لعل هذا الرجل قاتلي اذ تجا وتخلس من البحر لم يتركه العدل ان يحيى فما تولس اشار يده	(4) فَلَمَّا رَأَى الْبَرَابِرَةُ الْوَحْشَ مُعَلَّقاً بِيَدِهِ قَالَ بَعْضُهُمْ لِبَعْضٍ: «لاَ بُدَّ أَنَّ هَذَا الإِنْسَانَ قَاتِلٌ لَمْ يَدَعْهُ الْعَدْلُ يَحْيَا وَلَوْ نَجَا مِنَ الْبَحْرِ».
(5) üa ttarah alafaai fi annàr üa lam affibuh fcian qabihh,	(5) وطرح الأفعى في النار ولم اصابه شيا قبيح	(5) فَنَفَضَ هُوَ الْوَحْشَ إِلَى النَّارِ وَلَمْ يَتَضَرَّرْ بِشَيْءٍ رَدِيءٍ.
(6) üa qad Kan albarbar iadhonnu enuh men faati iathari, üa jafqatt maiet aia alardh. üa lãma nathattruh	(6) وقد كان البربر يظنوا انه من ساعة يأثر ويسقط ميت على الأرض ولما انتظروه وقتا طويل ورأوه انه لم يصيبه شيء رديئ	(6) وَأَمَّا هُمْ فَكَانُوا يَنْتَظِرُونَ أَنَّهُ عَتِيدٌ أَنْ يَنْتَفِخَ أَوْ يَسْقُطَ بَغْتَةً مَيْتاً. فَإِذِ انْتَظَرُوا كَثِيراً وَرَأَوْا أَنَّهُ لَمْ يَعْرِضْ لَهُ شَيْءٌ مُضِرٌّ تَغَيَّرُوا

üaqtan ttauil, üarau enuh lam iaffibu fci radi ghairu Kalamahom, üa qalu enuh Allah.	غيروا كلامهم وقالوا انه الله	وَقَالُوا: «هُوَ إِلَـهٌ!»
(7) Va Kanet fi taleK albalàd hhaqùl lerogel afmu Phuphlius, üa Kan raies taleK algiazira, fadhafna fi baituh thalathet aiã,	(7) وكانت في تلك البلد حقول لرجل اسمه بوبليوس وكان رأيس تلك الجزيرة فأضعفنا في بيته ثلاثة أيام	(7) وَكَانَ فِي مَا حَوْلَ ذَلِكَ الْمَوْضِعِ ضِيَاعٌ لِمُقَدَّمِ الْجَزِيرَةِ الَّذِي اسْمُهُ بُوبْلِيُوسُ، فَهَذَا قَبِلَنَا وَأَضَافَنَا بِمُلاطَفَةٍ ثَلاَثَةَ أَيَّامٍ.
(8) üa Kan abuh maridh behõme, üa üagiaa alamaa. fadachala alaih Bulos, üa fsalla üa üadhaa iduh aalaih fabarah.	(8) وكان أبوه مريض بهمة ووجعة ألاما فدخل عليه بلوس فصل ووضع يده عليه فابراه	(8) فَحَدَثَ أَنَّ أَبَا بُوبْلِيُوسَ كَانَ مُضْطَجِعاً مُعْتَرًى بِحُمَّى وَسَحْجٍ. فَدَخَلَ إِلَيْهِ بُولُسُ وَصَلَّى وَوَضَعَ يَدَيْهِ عَلَيْهِ فَشَفَاهُ.
(9) üa lãma faal hada Kanu faiar almordha, alladin fi taleK algiazire idaun menhu üa iabarua;	(9) ولما فعل هذا كانوا سار المرضى الذين في تلك الجزيرة يدعون منه ويبروا	(9) فَلَمَّا صَارَ هَذَا، كَانَ الْبَاقُونَ الَّذِينَ بِهِمْ أَمْرَاضٌ فِي الْجَزِيرَةِ يَأْتُونَ وَيُشْفَوْنَ.
(10) üa a*K*ramuna Kramàt Kathirat, zauduna	(10) واكرمونا كرمات كثيرة زودونا	(10) فَأَكْرَمَنَا هَؤُلاَءِ إِكْرَامَاتٍ كَثِيرَةً. وَلَمَّا أَقْلَعْنَا زَوَّدُونَا بِمَا يُحْتَاجُ إِلَيْهِ.
(11) üa chargiuna baad thala-thet afcihar. üa farna fi fafinet men AlasKandria *K*an qad fcietet fi algiazire, üa *K*an aaliha aalamet althum,	(11) وخرجونا بعد ثلاثة اشهر وسرنا في سفينة من الاسكندرية كان قد شتت في الجزيرة وكان عليها عالمة الثوم	(11) وَبَعْدَ ثَلاَثَةِ أَشْهُرٍ أَقْلَعْنَا فِي سَفِينَةٍ إِسْكَنْدَرِيَّةٍ مَوْسُومَةٍ بِعَلاَمَةِ الْجَوْزَاءِ كَانَتْ قَدْ شَتَتْ فِي الْجَزِيرَةِ.
(12) üa atabain ala Sarqufa (P. 230) almadina, üa ma*K*ta-na hena*K* thalathet aiam,	(12) واتابينا على (ص230) سرقوسا المدينة ومكثنا هناك ثلاثة أيام	(12) فَنَزَلْنَا إِلَى سِيرَاكُوسَ وَمَكَثْنَا ثَلاَثَةَ أَيَّامٍ.
(13) üa men hona*K* bulghana ala madinet Raghiun.	(13) ومن هناك بلغنا إلى مدينة راجيون	(13) ثُمَّ مِنْ هُنَاكَ دُرْنَا وَأَقْبَلْنَا إِلَى رِيغِيُونَ.

The Arabic Transcription in Malta Illustrata' by Gio FrancescoAbela	*Translation of the Arabic in 'Malta Illustrata' by Gio Francesco Abela*	*The account of St. Paul's shipwreck in Malta according to 'The Catholic Encyclopaedia'*
[27] (P. 227) Va men baad arbaat afcer iumam tohna fi Hadràir ilbahhar fi antaffaf alleil; üa dhannu almelahhùn anhom iadrun men alardh,	[27] (P. 227) After fourteen days we roamed in the raging sea, the sailors in the middle of the night thought they were seeing land.	[Acts 27] But after the fourteenth night had come, as we were sailing in Adria, about midnight, the shipmen deemed that they discovered some country.
[28] falafu albulis fauagdu chamfet aafcirin qama, thom faru qalil fauagdu chamfet aafcer qamat.	[28] So they threw the line and found twenty-five fathoms then they moved a little further and found fifteen fathoms.	[28] Who also sounding found twenty fathoms: and going on a little further, they found fifteen fathoms.
[29] fachofna en naKaa fi muadhaa ffaabe. falaqu arbaa mrafi fi mauchar almarKeb, va Konna neduu an iacun naharan.	[29] We feared we find ourselves in difficult regions. So they threw four anchors on the rear of the vessel while we prayed for the light of day.	[29] Then fearing lest we should fall upon rough places, they cast four anchors out of the stern: and wished for the day.
[30] Famà almelahhun faradu alharb, men alsafinet balardh flama ra	[30] Some sailors wanted to flee the ship to land and when he saw that,	[30] But as the shipmen sought to fly out of the ship, having let down the boat into the sea, under colour, as though they would have cast anchors out of the forepart of the ship,
[31] Bulos daleK qal lelqaied üa lelgionàd. An kan hulai lam iaqimu, üa iatbatu fi alfafina, lam taqdarùn antom taaifciu.	[31] Paul said to the captain and the legionnaire that if they did not stay and remain on the ship you would not live.	[31] Paul said to the centurion and to the soldiers: Except these stay in the ship, you cannot be saved.

[32] Aand daleK qattaau alfciarat habel alqareb men almarKeb, üa tarKuh taihan;	[32] Instantly they cut the sails of the ropes of the boat to the vessel and let go on its own.	[32] Then the soldiers cut off the ropes of the boat and let her fall off.
[33] fama Bulos annu Kan lama efsbahh, Kan iafalohom egimaain an iaqbelu ttaaman, üa iaqullohom en laKom arbaat aafcer iuman lam taduqu fcian men alfazaa,	[33] At dawn Paul asked them all to accept food saying to them, you have been fourteen days without tasting anything from fear	[33] And when it began to be light, Paul besought them all to take meat, saying: This day is the fourteenth day that you have waited and continued fasting, taking nothing.
[34] üa ana attlob alaiKom en taqbelu ttaaman lequam hhiatoKom; lennoh lam iadhiaa fciaaret üahede men ruas ahhed (P. 228) menKom.	[34] and so I pray you to accept food to strengthen yourselves because not a single hair will be lost (P. 228) from the head of anyone of you.	[34] Wherefore, I pray you to take some meat for your health's sake: for there shall not an hair of the head of any of you perish.
[35] üa lama qal tanauel chobzan, üa fabahh Allah amamohom agimiaahom, üa Kasàr üa ached fi alaKal,	[35] As he spoke he took bread, praised Allah in front of them all, broke it and began to eat.	[35] And when he had said these things, taking bread, he gave thanks to God in the sight of them all. And when he had broken it, he began to eat.
[36] üa taazu giamihom, üa qablu ttaaman.	[36] All of them took heart and accepted food.	[36] Then were they all of better cheer: and they also took some meat.
[37] üa Kanu fi alsafinet maitain üa fettet üa febaain nafsan.	[37] On the ship they were two hundred seventy six souls.	[37] And we were in all in the ship two hundred threescore and sixteen souls.
[38] üa lama fcebaau men alttaam giaalu iachafëfu men alsafinet, üa hhamlu hhonta, üa alqu fi albahhar.	[38] When they had had enough food they began to lighten the ship, took the wheat and threw it away in the sea.	[38] And when they had eaten enough, they lightened the ship, casting the wheat into the sea.

[39] flàma ttalaa alnahàr lam iaarefu almalahhùn aiet ardh hi, lenhom abfaru barr men baaid, üa Kanu iahamû en iadfaau alsafinet alaih en amKanohom,	[39] When daytime arrived the sailors did not recognize which land it was because they saw the land from afar and they considered grounding the ship on it if they could.	[39] And when it was day, they knew not the land. But they discovered a certain creek that had a shore, into which they minded, if they could, to thrust in the ship.
[40] faqattaau almrafi men almarKeb, üa tarKuha fi albahhar, üa hhattu maKeb affaKanat, üa alqu fciraan ffaghir aani taranKit lelrihh, allatì tahab, üa Kanu ifiru nahhu albar,	[40] So they cut the anchors from the vessel and let them drop into the sea, they untied the knots and hung a small sail to the mercy of the wind which was blowing, they were going toward land	[40] And when they had taken up the anchors, they committed themselves to the sea, loosing withal the rudder bands. And hoisting up the mainsail to the wind, they made towards shore.
[41] famefset alfafinet maudhaan aali bain ghurain men albahhar, üa genhhet fih. faqam aaliha gianbaha alaüal, üa lam taKun tethharreK, fáma gianbaha almuacher enhal men oosf ilmuagi.	[41] and the ship moved to a high place between two inlets in the sea and inclined on it with its front side high and it did not move anymore, but its rear side broke up by the strength of the waves.	[41] And when we were fallen into a place where two seas met, they run the ship aground. And the forepart indeed, sticking fast, remained unmoveable: but the hinder part was broken with the violence of the sea.
[42] Faradu alfciurat en iaqtalu alafari, liala iasbahhu, üa iahrabu menhom;	[42] The counsellors wanted to kill the prisoners lest these swim ashore and escape from them	[42] And the soldiers' counsel was that they should kill the prisoners, lest any of them, swimming out should escape.
[43] famanahom alqied men daleK, lennuh Kan irid en iahhi, üa iachallafi Bulos; üa alladin Kanu iaqdarun iasbahhun amarhom en iasbahhun fi alaüal, üa iaabru ala albar;	[43] but the captain forbade them because he wanted to let Paul live and free him. He ordered those who could swim to be the first to swim and cross to land,	[43] But the centurion, willing to save Paul, forbade it to be done. And he commanded that they who could swim should cast themselves first into the sea and save themselves and get to land.

[44] üa albaqi aala alaüahh, üa aala iidàn men alsafinet aabamhom. fanagiu begiamiihom alardh,	[44] and the rest on boards and wooden parts of the ship in front of them. Thus they all survived and reached land.	[44] And the rest, some they carried on boards and some on those things that belonged to the ship. And so it came to pass that every soul got safe to land.
[1] Va men baad daleK aftachbaru en taleK algiaziret tidii (P. 229) MALTTIE, üa albarbar alladin Kanu faKan fiha adharu lena ahhffan üa rahhmet giazilet,	[1] After that they were informed that the island was called (P. 229) Malta and the Barbar resided in it showed towards us great kindness and mercy.	[1] (Acts 28) And when we had escaped, then we knew that the island was called Melita. But the barbarians showed us no small courtesy.
[2] üa adhmaru naran üa adaauna Kolna lenefftali legel almattar alKathir, üa albard, alladi Kan.	[2] They kindled a fire and invited us all to draw near to the warm ourselves because of the heavy rain and the cold.	[2] For kindling a fire, they refreshed us all, because of the present rain and of the cold.
[3] Fahamel Bulos Kathir mê alqafc, üa üadhaa aala annar. facharget menhom afaa men fachunet annar, üa furaha, üa nahfciet iduh.	[3] Paul gathered many twigs and threw them into the fire. A viper emerged from them because of the heat of the fire and gripped his hand.	[3] And when Paul had gathered together a bundle of sticks and had laid them on the fire, a viper, coming out of the heat, fastened on his hand.
[4] Fláma rauha albarbar maallaqe fi iduh qalu leella hada alrogiol qatuli, ed nagia, üa tachallaff men albahhar; lam iatarKuh alaadel en iahhia.	[4] When the Barbar saw it hanging from his hand they said: maybe this man is a murderer who survived and was saved from the sea but justice did let him live.	[4] And when the barbarians saw the beast hanging on his hand, they said one to another: Undoubtedly this man is a murderer, who, though he has escaped the sea, yet vengeance does not allow him to live.
[5] fáma Bulos afciar idduh, üa ttarah alafaai fi annàr üa lam affibuh fcian qabihh,	[5] But Paul shook his hand and threw the viper into the fire without anything ugly happening to him.	[5] And he indeed, shaking off the beast into the fire, suffered no harm.

[6] üa qad Kan albarbar iadhonnu enuh men faati iathari, üa jafqatt maiet aia alardh. üa lãma nathattruh üaqtan ttauil, üarau enuh lam iaffibu fci radi ghairu Kalamahom, üa qalu enuh Allah.	[6] The Barbar expected him soon to faint and fall dead to the ground. After waiting for a long while and saw that nothing bad happened to him they changed their minds and said that he was Allah.	[6] But they supposed that he would begin to swell up and that he would suddenly fall down and die. But expecting long and seeing that there came no harm to him, changing their minds, they said that he was a god.
[7] Va Kanet fi taleK albalàd hhaqùl lerogel afmu Phuphlius, üa Kan raies taleK algiazira, fadhafna fi baituh thalathet aiã,	[7] There used to be in that country fields belonging to a man whose name was Publius who was the governor of that island. He lodged us in his home for three days.	[7] Now in these places were possessions of the chief man of the island, named Publius: who, receiving us for three days, entertained us courteously.
[8] üa Kan abuh maridh behõme, üa üagiaa alamaa. fadachala alaih Bulos, üa fsalla üa üadhaa iduh aalaih fabarah.	[8] His father was sick with fever and was in pain. Paul entered on him, gave praise, laid his hands on him and healed him.	[8] And it happened that the father of Publius lay sick of a fever and of a bloody flux. To whom Paul entered in. And when he had prayed and laid his hands on him, he healed him.
[9] üa lãma faal hada Kanu faiar almordha, alladin fi taleK algiazire idaun menhu üa iabarua;	[9] After doing that the rest of the sick, who were in that island asked from him and were healed.	[9] Which being done, all that had diseases in the island came and were healed.
[10] üa aKramuna Kramàt Kathirat, zauduna üa chargiuna	[10] They were very grateful to us. They furnished us with supplies and let us leave	[10] Who also honoured us with many honours: and when we were to set sail, they laded us with such things as were necessary.
[11] baad thalathet afcihar. üa farna fi fafinet men AlasKandria Kan qad fcietet fi algiazire, üa Kan	[11] after three months. We sailed on a vessel from Alexandria which had wintered on the island	[11] And after three months, we sailed in a ship of Alexandria, that had wintered in the island,

aaliha aalamet althum,	having the Twins symbol	whose sign was the Castors.
[12] üa ata bain ala (P. 230) Sarqufa almadina, üa maKtana henaK thalathet aiam,	[12] which took us (P. 230) to the city of Syracuse where we stayed three days	[12] And when we had come to Syracusa, we tarried there three days.
[13] üa men honàK bulghana ala madinet Raghiun.	[13] and from there we reached the city of Reggio.	[13] From thence, compassing by the shore, we came to Rhegium:

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APPENDIX

Information Policies in Science Project International Seminars

(2012-2013)

Consiglio Nazionale delle Ricerche
CERIS
ISTITUTO DI RICERCA SULL'IMPRESA E LO SVILUPPO

SIPS
Società Italiana per il Progresso delle Scienze

in cooperation with

University of Malta
Department of Library Information and Archive Sciences (LIAS)

APRE
AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA

Information Policies in the Social Sciences and Humanities

Exploratory Seminar

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LXXII Scientific Meeting of SIPS

6 December 2012

Consiglio Nazionale delle Ricerche - Piazzale A. Moro, 7 - Roma

Information Policies *in Science*

The seminar falls within the activities of the research area "Knowledge circulation and scientific information policies" of the Ceris Institute, a research area aimed at exploring the scope of Social Sciences and Humanities from the point of view of knowledge circulation. In particular, the seminar will focus on some contextual and critical elements in the Humanities, influencing the definition of appropriate policies for scientific information, understood as a pivotal and enabling factor for the advancement of humanistic research and not only as its outcome.
The Seminar will also set the stage for the next steps of the project "Information Policies in the Social Sciences and Humanities", whose Scientific Committee will meet in the afternoon.

Scientific committee of the Seminar

Carla Basili
Ceris, Consiglio Nazionale delle Ricerche

Enzo Casolino
Società Italiana per il Progresso delle Scienze

Milena Dobreva
University of Malta

Programme

9.30 – 10.00 Institutional Welcome
Secondo Rolfo, Director of Ceris-Cnr
Maurizio L. Cumo, President of SIPS

10.00 – 11.30
Carla Basili, Ceris, Consiglio Nazionale delle Ricerche
Introduction: aims of the Seminar

Ann Katherine Isaacs, Università di Pisa
The European Archipelago of Humanistic Thematic Networks: lessons learned

Milena Dobreva, University of Malta
Information behaviour of the Humanities Scholar

Joumana Boustany, Paris Descartes University
Open data and e-science

Coffe break

12.00 -13.00
Gianni Guastella, Università di Siena
Scienze umane e memoria culturale nel mercato della conoscenza

Vita Fortunati, Università di Bologna
Acume2 Interfacing Sciences and Humanities: un progetto europeo per l'integrazione tra discipline

Monique Longo, APRE National Contact Point for the Social Sciences and Humanities
La diffusione delle Scienze Socio-economiche e Umanistiche nel 7° Programma Quadro

15.00 – 17.30 MEETING OF THE SCIENTIFIC COMMITTEE OF THE PROJECT "INFORMATION POLICIES IN THE SOCIAL SCIENCES AND HUMANITIES"

Consiglio Nazionale delle Ricerche
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SIPS
Società Italiana per il Progresso delle Scienze

in collaborazione con
Università di Malta
Dipartimento di Biblioteconomia, Archivistica e Scienze dell'Informazione

APRE
AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA

Politiche dell'Informazione nelle Scienze Umane e Sociali

Seminario esplorativo

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LXXII Riunione scientifica SIPS

Giovedì, 6 dicembre 2012
Consiglio Nazionale delle Ricerche - Piazzale A. Moro, 7 - Roma

Information Policies *in Science*

Il seminario si colloca tra le attività del Ceris relative alla linea di ricerca "Circolazione della conoscenza e politiche dell'informazione scientifica" che intende esplorare il problema della circolazione del sapere nell'ambito delle Scienze Umane e Sociali. In particolare, questo primo seminario esplorativo è incentrato su alcuni aspetti di contesto e problematici nelle Scienze Umane, e mira a mettere a fuoco fondamenti, strumenti e leve per più confacenti politiche per l'informazione scientifica, intesa come elemento propulsore della ricerca nelle Scienze Umane e non solo come risultato di essa.
Il Seminario è anche occasione per l'avvio formale e la programmazione delle attività del progetto "Politiche dell'Informazione nelle Scienze Umane e Sociali", il cui comitato scientifico si riunisce al termine dei lavori.

Comitato scientifico e promotore del Seminario

Carla Basili
Ceris, Consiglio Nazionale delle Ricerche

Enzo Casolino
Società Italiana per il Progresso delle Scienze

Milena Dobreva
University of Malta

Programma

9.30 – 10.00 Saluti Istituzionali
Secondo Rolfo, Direttore del Ceris-Cnr
Maurizio L. Cumo, Presidente SIPS

10.00 – 11.30
Carla Basili, Ceris, Consiglio Nazionale delle Ricerche
Apertura dei lavori - finalità del Seminario

Ann Katherine Isaacs, Università di Pisa
The European Archipelago of Humanistic Thematic Networks: lessons learned

Milena Dobreva, University of Malta
Information behaviour of the Humanities Scholar

Joumana Boustany, Paris Descartes University
Open data and e-science

Pausa caffè

12.00 -13.00
Gianni Guastella, Università di Siena
Scienze umane e memoria culturale nel mercato della conoscenza

Vita Fortunati, Università di Bologna
Acume2 Interfacing Sciences and Humanities: un progetto europeo per l'integrazione tra discipline

Monique Longo, APRE National Contact Point for the Social Sciences and Humanities
La diffusione delle Scienze Socio-economiche e Umanistiche nel 7° Programma Quadro

15.00 – 17.30 RIUNIONE DEL COMITATO SCIENTIFICO DEL PROGETTO "POLITICHE DELL'INFORMAZIONE NELLE SCIENZE UMANE E SOCIALI"

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Information Policies *in Science*

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Information Policies in Science
Qualitative and quantitative aspects

International Seminar
Session of Qualitative and Quantitative Methods in Libraries
7 June 2013
Faculty of Economics of the Sapienza University, Rome, Italy

Seminar convenor: Carla Basili, National Research Council, Italy
Organising Secretary: Anna Perin (a.perin@ceris.cnr.it), Luca Lanzillo (l.lanzillo@ceris.cnr.it)

9:00 - 9:20
Carla Basili
National Research Council, Italy
The European vision on scientific information

9:20 - 10:20
Carla Basili - Markku Laitinen - Jarmo Saarti
National Research Council, Italy - University of HelsinkiUniversity of Helsinki, Finland - University of Eastern FinlandUniversity of Eastern Finland, Finland
Library and science indicators: towards a new paradigm to assess the library and information services as an input to the academic processes

Chiara Faggiolani - Giovanni Solimine
National Research Council, Italy - Sapienza UniversitySapienza University of Rome, Italy
The evaluation of research in the humanities: a comparative analysisof research in the humanities: a comparative analysis

Angela Repanovici
Transilvania University of Braşov, RomaniaTransilvania University of Braşov, Romania
Correlation and regression between proprietary and open access scientometrics tools - an exploratory study

Anna Maria Tammaro
University of Parma, Italy
Altmetrics: a case study on information practices of humanities scholars

10:20 - 10:40
Giancarlo Birello - Valter Giovannetti Valter Giovannetti - Ivano Fucile - Anna Perin
National Research Council, Italy
Digital preservation: an open-source architecturesource architecture

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Knowledge Sharing and Transfer in Scholarly Disciplines

Project rationale

Policy measures for scientific information have been and will continue to be subject to periodic review and revision, as a function of factors both internal and external to the science system. Different models of knowledge circulation and access to information coexist, often the one in contrast with the other.
The concept itself of "scientific information policies" tends to adapt to new configurations of the scientific system, to emerging models of knowledge transfer, the alternation of new agents, as well as to the role and functions of innovative vehicles for the dissemination of scientific results. From an economic perspective, knowledge sharing and transfer are increasingly the leitmotiv of the recommendations issued by the European Commission to support the economic development of Europe.

In view of the above, the Information Policies in Science (IPS) project intends to define a reference framework for analysing and comparing information policies along multiple dimensions, and tailored to diverse disciplinary contexts, given how much scholarly disciplines may differ in their information habits and environments.

The research area of the Humanities constitutes a major focus of the IPS project, since Humanities research is increasingly required today to sustain its position within the Knowledge Economy paradigm.

Forthcoming events

International Seminar on "Scientific Information Policies in the Digital Age: enabling factors and barriers to Knowledge Sharing and Transfer", Rome, 16 September 2013

International Seminar on "Research Infrastructures in the Humanities: Key Policy Issues", Malta, 25 September 2013 (TPDL2013 satellite event).

IPS project website

http://www.ceris.cnr.it/Basili/information_policies_in_science.htm

Contact

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International Seminar on "Scientific Information Policies in the Digital Age: Enabling Factors and Barriers to Knowledge Sharing"

16 September 2013
Consiglio Nazionale delle Ricerche - Piazzale A. Moro, 7, Rome, Italy

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Research Rationale

The Ceris Institute of the Italian National Research Council is organising an International Seminar on "Scientific Information Policies in the Digital Age: enabling factors and barriers to Knowledge Sharing", to be held on 16 September 2013 in Rome, at the premises of the Italian National Research Council.

This is the third of a series of exploratory Seminars organised within the framework of the "Information Policies in Science (IPS)" project, launched by Ceris in 2009 with the main aim of understanding the impact on the Humanities of the complex set of Scientific Information Policies in place for Knowledge Sharing and Transfer.

The IPS project intends to produce a reference framework for the analysis and comparison of policy models for scientific information, along multiple dimensions and tailored to diverse disciplinary contexts, but with a focus on the areas of the Humanities and Social Sciences.

Topics

Guided by the rationale of the "Information Policies in Science" project, the Seminar focuses on the theme of Knowledge Sharing in its various aspects of policy concern, and will explore the opportunities, barriers and driving forces for the circulation of knowledge, as they emerge from the current context of scholarly communication and from the European Commission's policy indications.

The perspective adopted is broad enough to include all Research domains; nevertheless, a focus is on Knowledge Sharing in the Humanities.
Topics, therefore, include but are not restricted to:

Accessibility of information
Availability of information
Censorship - Privacy
Communication barriers
Information barriers

Digital divide
Free flow of information
Global public goods
e-infrastructures
Information literacy in science

Information transfer
Scientific Language barriers
Open data
Information Commons
Research Infrastructures

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Scientific Information Policies in the Digital Age: Enabling Factors and Barriers to Knowledge Sharing and Transfer

International Seminar
16 September 2013
Consiglio Nazionale delle Ricerche - Piazzale A. Moro, 7, Rome, Italy

9:30 *Registration*
10:00 –11:00 *Welcome, opening remarks and keynote*

Riccardo Pozzo
Director of the Department of Social Sciences and Humanities-Cultural Heritage,
National Research Council, Italy – European Science Foundation, Scientific Review Group for the Humanities

Secondo Rolfo
Director of the Ceris Institute, National Research Council, Italy

Karen Hartman
Information Resource Officer, U.S. Embassy Rome

Carla Basili
Ceris Institute, National Research Council, Italy
The Information Policies in Science project: Knowledge Sharing and Transfer in the Humanities

Christine Borgman
Graduate School of Education and Information Studies, University of California, Los Angeles
Keynote presentation: Why are Scientific Data Rarely Reused?

11:00 -11:30 *Coffee break*

Rossella Caffo
Director of the Central Institute for the Union Catalogue of the Italian Libraries
The Digital Cultural Heritage and Open Data

Maria Guercio
Sapienza University in Rome
Preserving e-science records: problems and opportunities

Roberto Caso
University of Trento
Open Access Policy: a Law and Social Norms Perspective

Alexander Dimchev – Milena Dobreva
Sofia University - Malta University
Information Policy Models: the example of Bulgaria

Charles Platt, Denise A. D. Bedford
Kent State University, Ohio
Mathematical Languages - Barriers to Knowledge Transfer and Consumption

Barbara Casalini
Casalini Libri
Making Italian academic publishing visible on an international scale, from print to digital: the Casalini experience

13:30 – 14:30 *Lunch*

14:30 – 16:00 Round Table: Digital Humanities: new digital forms of Science
Chair: **Mareike König – Milena Dobreva**
German Historical Institute in Paris - Malta University
Young Researchers in Digital Humanities: A Manifesto

The round table is twinned with the results from the international Colloquium on Research Conditions and Digital Humanities organised by the German Historical Institute in Paris

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Research Infrastructures in the Humanities
Key Policy Issues

International Seminar - Satellite event of TPDL '2013
Session of Qualitative and Quantitative Methods in Libraries
25 September 2013
Grand Hotel Excelsior, Valletta, Malta

Seminar convenors: Carla Basili, National Research Council, Italy -
Joseph Cannataci and Oleksandr Pastukhov, University of Malta

Organising Secretary: Anna Perin (a.perin@ceris.cnr.it), Chiara Faggiolani (c.faggiolani@ceris.cnr.it)

14:00 – 15:30: Setting the scene
Carla Basili
National Research Council, Italy – Sapienza University, Rome
Research Infrastructures in the European context

Arianna Ciula
European Science Foundation: Standing Committee for the Humanities
Research Infrastructures in the work of the ESF Standing Committee for the Humanities

Kseniya Khovanova Rubicondo
Council of Europe
The Benefits of Expanding e-Infrastructures for Cultural Policy Making in Europe

Rossella Caffo
Director of the Central Institute for the Union Catalogue of the Italian Libraries
DARIAH, The Digital Research Infrastructure for the Arts and Humanities

Mario De Marchi - Edoardo Lorenzetti
National Research Council, Italy
Advanced Research Infrastructures in the Humanities and Cultural Heritages: the R&D Information System for SMEs of the Italian National Research Council

15.30 – 15:50: Provocative position paper
Raivo Ruusalepp- Milena Dobreva - Krassimira Ivanova
National Library of Estonia -University of Malta - Bulgarian Academy of Sciences
Digital Curation Roadmaps: a Policy Instrument in the Making

15.50 – 16:10 : Coffee break

16:10 – 17:10: Round table: The role of the Memory Institutions in the Development of Research Infrastructures for the Humanities
Lorna Hughes
University of Wales
A Digital Public Space for Wales at the National Library of Wales

Zdeněk Uhlíř
National Library of the Czech Republic
Manuscriptorium as a Part of Research Infrastructure

Nemanja Kalezic - Stanislava Gardasevic
National Library of Serbia
The Legal Deposit of Digital Copies of Printed Material in Serbia, policy and practice in the National Library of Serbia

Alice Nemcova
Prague Office of the OSCE Secretariat
The Beauty and the Beast: Declassifying Restricted Materials Using Open Access Media

17:10 – 18:30: Case studies and novel directions

Simon Merceica - Francis Cassar
University of Malta
The Challenges of Medieval Arabic and Muslim Narratives to the Eurocentric world of Digital Humanities

Luca Lanzillo
National Research Council, Italy
A thematic resource collection for the Medieval Art: metadata issues

Panayiota Polydoratou
Department of Library Science and Information Systems, ATEI of Thessaloniki
Open Data, Data Journals and the Role of Policies in Scholarly Publication

Angela Repanovici
Transilvania University, Romania
Institutional Repositories as Research Infrastructures: key policies and case study at Transilvania University

Brian Warrington
Temi Zammit Foundation
Open data and the HOMER project

18:30 – 18:45: Conclusions and future steps

Seminar rationale

The globalisation of scientific research is increasingly pushing towards maximizing the sharing of research data and results also through the development of Research Infrastructures.

Humanities Research, which so far has reacted - albeit more slowly than other disciplinary domains - to technological innovation, is called today also to cope with the current economic and globalised environment.

In this context, Digital Libraries are called to show their power not only as powerful technological tools for both individuals and research groups, but also as knowledge sharing resources among distributed communities of research. Digital Libraries, in fact, considered as the frame for Thematic Research Collections, are potential Research Infrastructures making accessible large bodies of diverse material and allowing multi-disciplinary access to and analysis of research material distributed through space and time.

What is the current offering of Digital Libraries within this context, and how they can be enhanced to serve as Research Infrastructures? To what extent – and what sort of Information Policies – could stir this process? Who should be the initiators for work on such policies – researchers, funding bodies, citizens?

In view of the above, the Seminar aims to identify policy and research priorities that can facilitate the fruition of Digital Libraries as Research Infrastructures in the Humanities. Given the purpose of the Seminar, it would be desirable to discuss how specific cases of Digital Libraries could serve as Research Infrastructures, in terms of critical, enabling and driving factors.

The Seminar is part of the research activities of the Information Policies in Science - (IPS) project, coordinated by the Ceris Institute, and aimed at mapping and comparing scientific information policies in and for the European Research Area. Information habits, as well as the processes of knowledge sharing, transfer and use in the Humanities and in the digital Humanities are major areas of focus of the IPS project.

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CARLA BASILI

Carla Basili's research interests focus on the multiple dimensions of scientific information in the context of policies for research and innovation. Since 1988, Carla Basili is Senior Researcher at the Italian National Research Council (CNR), within the Institute for Studies on Scientific Research and Documentation (from 1988 to 2003) and later (from 2003 to date) at the Ceris Institute for Economic Research on Firms and Growth.

She has been Associate Professor of Methodologies of Scientific Information at Sapienza University of Rome, Associate Professor of Documentation at the Macerata University (1995-2007) and the Lumsa University in Rome (1998-2008), Vice-president of the Italian Association for Advanced Documentation (1998-2004) and Italian delegate in the European Council of Information Associations (ECIA) (1997-2004).

Carla Basili is Co-ordinator and initiator (since 2001) of the European network on Information Literacy and of the European Observatory on Information Literacy Policies and Research (since 2006).

She is author of over 70 publications, including 7 books, and scientific responsible of national and European research projects, including the Information Policies in Science (IPS) Project.

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